## Annual author index

Abe.T. 851 Aboul-Azm,T. 877 Abu-Zeid, M. 1307 Adlakha, H. 1535 Adolphe, M. 767 Afeefy, H.Y. 1599 Agarwal, R. 1491 Ahmad,S. 1261 Ahn,Y.S. 2329 Aiyar, J. 1159 Akman, S.A. 1783 Alabaster, O. 887 Albano, E. 799 Albert, R.E. 83 Alexander, R.J. 45 Alexandrov, K. 929 Aligia,C. 1019 Alink, G.M. 719 Amanuma, T. 1365 Amin,S. 2271 Amini, S.B. 1509 Anderson, J.N. 297,895 Anderson, L.M. 2107 Anderson, M.W. 1583, 2427 Andersson, C. 1345 Andersson, R. 629 Andrae, U. 373 Andreoli, C. 547 Anttila.S. 929 Appel, M.J. 1525 Applegate, L.A. 1557 Aramaki, T. 827 Archer, M.C. 857 Arcucci, A. 439 Arlauskas, A. 329 Asamoto, M. 1651 Aune, T. 779 Aust, A.E. 637 Baan, R.A. 457, 1257 Babu.S.R. 1235 Bach, I. 2191 Bachmann, M. 69 Badawi, A.F. 877 Bailey, E. 1091 Bailleul, B. 349 Baird, W.M. 297,895 Bakale, G. 1437, 2059 Baker, R.S.U. 329 Bal, E. 2407 Balansky, R.M. 2187 Bannasch, P. 271,2329 Barat, N. 723 Barbin, A. 727 Baret, A. 321 Barnes, T.S. 165 Bartsch, H. 727,929,1001,2317 Basic,I. 811 Batist, G. 1705 Bauer-Hofmann, R. 477 Baxter, C.S. 83, 189, 1859 Bayley,L. 483 Beach,A.C. 1053,1731 Beattie,C. 1743 Beaumatin, J. 767 Bechtold, W.E. 1217,1633 Beecham, E.J. 1967 Beehler, B.C. 2003 Beijersbergen, G.M.J. 1759 Belleli, A. 2293 Beltrán, L.M. 177,525,617 Benasutti, M. 1415 Benigni, R. 547 Berghard, A. 651

Bertram, J.S. 1107 Bevan, D.R. 403 Bevill, R.F. 2153 Bhamra, R.K. 555 Bhatt, T.S. 617 Bignami, M. 87 Binder, U. 1961 Bingham, S.A. 683 Bird, R.P. 573, 1863, 2081 Black, S.D. 1337 Blackburn, A.C. 1337 Blanck, A. 171 Blum, M. 1713 Blumberg, P.M. 2161 Bocckino, S.B. 1113 Bock,K.W. 453,691,2227 Bodell,W.J. 315,1937 Boesen,J.J.B. 2407 Bogdanffy, M.S. 2095 Bohr, V.A. 1967, 1975 Bond, J.A. 1143 Bonin, A.M. 329 Boobis, A.R. 2221 Borowski, P. 2403 Bosland, M.C. 669 Bouchard, L. 341 Box, H.B. 2003 Boynton, A.L. 1107 Brasitus, T.A. 45 Bravard, A. 767 Breitenstein, M.J. 1047 Brendler,S.Y. 2435 Brittebo,E.B. 2263 Bronzetti, G. 2175 Brouet, I. 1001 Brun, G. 2317 Brunnemann, K.D. 2415 Bryant, M.F. 1731 Buchmann, A. 477,691 Buck, F. 2403 Buhler, D.R. 2375 Buonaratl, M.H. 621 Burka, L.T. 1633 Burke, M.D. 165 Burlingame, A.L. 315 Burns, D.J. 1113 Butch, E.R. 895 Butler, T.D. 63 Butterworth, B.E. 409 Calcagnile, A. 87 Calderó, J. 493 Calvayrac, R. 321 Cameron, I.L. 815 Campbell, H.A. 1389 Campbell, T.C. 1607 Camus, A.-M. 929 Canella, K.A. 2347 Cantelli-Forti, G. 1403 Cantoreggi,S. 193 Carbone, V. 1397 Carey, F.J. 1035 Carmichael, J. 1035 Carmichael, P.L. 1127 Carney, D.H. 1 Carter, J.P. 2107 Carthew, P. 1917 Castonguay, A. 341, 1447, 2137 Cecchini, E. 2175 Chakravarty, P.K. 2449 Chaloupka, K. 2233 Chaney, W.G. 1829 Chang, E.H. 1273

Chang, F. 233 Chang, I.Y. 1633 Chang, L.-Y. 1989 Chang, W.P. 923 Chaulk, E.J. 857 Chen, C. 233 Chen, C.-C. 643 Chen, J. 1503 Chen, S. 1191 Chen, Y. 1273 Chen, Z. Y. 675 Cheng, C. 2367 Chenicek, K.J. 177,525 Chenna, A. 2361 Cherrick, H.M. 1981 Chiappetta, C. 601 Chiesa, A. 1083 Chipman, J.K. 247, 1667 Chlapowski, F.J. 1651 Chong, Y.C. 77 Chung, F.-L. 1269, 1909 Cikryt, P. 807 Ciroussel,F. 727 Clark, R.E. 1095 Claycamp, H.G. 1289 Clayson, D.B. 1735 Coffing, S.L. 297 Cohen, S.M. 1651,2281 Collier.J.M. 509 Columbano, A. 379 Comi, P. 883 Coni, P. 379,497 Conney, A.H. 947,2183 Coombs, M.M. 329 Coon, M.J. 2141 Cooney, R.V. 1107 Cooper, D.P. 469,877 Cooper,S. 2335 Copple, D.M. 935, 1277, 2453 Coquerelle, T. 1989 Corbella, G. 493 Coscia, N. 2187 Costa, L.G. 417 Costa, M. 555, 1485, 1763, 2341 Cotta-Ramusino, M. 547 Couch, L.H. 1887 Couri, D. 33 Cox,J.E. 863,2415 Crane, A.E. 119 Craven, P.A. 541 Crofton-Sleigh, C. 2197 Cronin, G.M. 1869 Cross, D.R. 2471 Crowell, P.L. 1261 Cruzeiro-Hansson, L. 2067 Csanády,G.A. 1143 Cummings,J.H. 683 Curphey, T.J. 95 Curran,B. 307 Curto, M. 379 D'Agostini,F. 2187 D'Ambrosio, S.M. 463 D'Orazio, D. 1713 Dahl, A.R. 1633 Dahle, H.K. 1957 Daly, J.M. 1519 Daniel, F.B. 1325 Dashwood, R. 1121 Dashwood, R.D. 113 Datta, A.K. 283 Daub, G.H. 1775 Daubersies, P. 349 Davie, J.R. 573

Davies, A. 2197 Davies, D.S. 2221 Davies, R. 2381 Davis, B.B. 447, 1235, 2087 Daya-Grosjean, L. 321 de Boer, J.G. 15 De Cannière, D. 241 De Flora, S. 1159,2187 de Gruijl, F.R. 2169 de Kok, T.M.C.M. 1249 De Lorenzo, F. 439 de Matteis,F. 2197 de Vogel, N. 303 de Vries, H. 1759 Dehaye, J.-P. 241 Del Carratore, R. 2175 DeMatos.P. 101 Demkowicz-Dobrzanski, K. 1447 Dempke, W.C.M. 1209 den Engelse, L. 987 Den Engelse, L. 2101 Denda, A. 1227, 1365 Denizeau, F. 2335 DeRubertis, F.R. 541 Desai, D. 2271 Deutsch, W.A. 259 Devadas, K. 1273 Devereux, T.R. 2427 Devor. D.E. 1541 Dianzani, M.U. 385, 1929 DiAugustine, R.P. 2009 Dickey, C. 2041 Dieteren, N. 2407 DiGiovanni, J. 177,525,617 Ding, X. 2141 Dipple, A. 2347 Diwan, B.A. 1351, 1893 Dlugosz, A. 2367 Dogliotti, E. 87 Dominé, F. 2467 Domingo, J. 2381 Donahue, P.R. 917 Doniger, J. 1981 Doroshow, J.H. 1783 Downs, J.W. 1337 Dragan, Y.P. 125,739,1389 Dragsted, L. 629 Driver, C.L. 2107 Drouin, E. 1415 Dunn, W.C. 1989 Dutrillaux, B. 767 Dutta-Choudhury, T.A. 33 Dypbukt, J.M. 417 Eacho.P.I. 2453 Earley, K. 1731 Eaton, D.L. 95,675 Eberhart, J. 297 Egido, R. 493 Egner, P.A. 101 El-Bayoumy, K. 2271 Eldridge, S.R. 409 Eling, T.E. 515 Elkind, M.M. 643 Ellem, K.A.O. 183 Ellul, A. 683, 2353 Enami, T. 1155,2133 Engelhardt, J.A. 935 Engels, W. 585 Ennever, F.K. 2059 Enzmann, H. 943 Erexson, G.L. 1731 Erickson, L.C. 259 Ericksson, L.C. 1461

## Annual author index

Erikstein.B. 1795 Eskelson, C.D. 1811 Evans, J.G. 1917 Evensen, Ø. 1957 Ewen.S.W.B. 165 Ewertz,M. 2241 Faa, G. 379 Fabbro, D. 1997 Fadlallah,S. 2335 Fahnert, R. 57 Fan, C.Y. 361 Fanick, W. 2403 Farber, E. 433 Farin, F. 675 Farmer, P.B. 1091 Fasshauer, I. 1713 Gabrielson, E.W. 1359,1701 Hamdan, M.A.M.S. 1743
Galeotti, C.L. 2175 Hao, W. 1615 Galeotti, C.L. 2175 Gali, H.U. 715 Galiègue-Zouitina,S. 349 Gallo, E. 2175 Gallo, M. 1397 Gallucci, J.C. 1337 Ganther, H.E. 1167 Gao, M. 1667 Gao, W. 519

Garberg, P. 1751 Garland, E.M. 2281 Gaylor, D.W. 2419 Geacintov, N.E. 1817 Gelboin, H.V. 297 Gelderblom, W.C.A. 433 Gensler, H.L. 9 Georgiadis, C.A. 2183 Gerlyng, P. 1795 Gerson,S.L. 2137 Gerwin,B.I. 1359 Gescher,A. 1091 Giacomini,L. 379 Gibson,N.W. 425 Giglioni,B. 883 Gilissen, R.A.H.J. 1699 Gilmour, S.K. 51 Ginsler, J. 25 Hacker,H.J. 271 Hadi,S.M. 605 Hakoi,K. 1513 Hall,A.J. 891 Hao, W. 1615 Happe, J. A. 621 Harbers, M. 2403 Hardaker, K. J. 1383 Hardman, W. E. 815 Harris, C. C. 395, 1359, 1701 Harrison, D. J. 2255 Hart, R. W. 2419 Hao, W. 1615

Hartenstein, B. 1989

Harvey,R.G. 1575 Ibeanu,G. 1989 Harwood,P.J. 1107 Iden,C.R. 2361 Hasegawa,A. 391 Idris,A.M. 1001 Hasegawa,H. 2313 Iio,T. 1663 Hasegawa,R. 333,787,1043, Ikenaga,M. 1503 1427 Hasegawa, T. 1155 Hashimoto,H. 787 Haskill,J.S. 63 Hass, B.S. 2419 Hatayama, I. 265 Hass,B.S. 2419 Hatayama,I. 265 Hatcher,J.F. 955,1705 Hattori,T. 2313 Hautefeuille,A. 2317 Hayakawa,H. 289,837 Hayashi,Y. 501,569,2133 Hayatsu,H. 1433 Hayes,J.D. 2255 Hsieh, D.P.H. 2029 Hsieh, Y.-C. 2053 Hsu, F. F. 1235 Hsu,S. 497 Huang,M.-T. 947,2183 Huber, W.W. 1643 Hudson, G.J. 891 Hudson, G.J. 891 Husgafvel-Pursiainen, K. 929 Hutter K.F. 2435 Hutter, K.F. 2435 Iannone, A. 799

Idris, A.M. 1001 Ikenaga, M. 1503 Ilett, K. F. 663 Imaida, K. 569,913,2133 Imamoto, A. 177,525 Imaoka,S. 979 Imazawa, T. 1379 Imazawa, I. 1379 Imsiecke, G. 69 Ingebrigtsen, K. 779 Inohara, H. 845 Inohara, H. 845 Inoue, S. 1497 Inui, Y. 979, 1789 Ip, C. 1167 Isaac, E. L. 1907 Farmer, P. B. 1091
Fashbarer, L. 1913
Fashbarer, L. 1913
Gilisen, R. A. H. 1699
Fiza, S. P. 247, 1667
Gilloan, S. K. 51
Fizal, F. 605
Gilloan, A. 547
Gilloan, B. C. 2009
Gillock, A. 2567
Gillock, C. 2059
Ferlon, J. S. 621
Gillock, C. 2059
Gillock, C. 2059
Ferlon, J. S. 621
Gillock, C. 2059
Gillock, C. 2059
Ferrando, R. C. 1835
Goldworthy, T. L. 409, 1011
Helman, D. W. 315
Goldworthy, T. L. 409, 1011
Helman, D. W. 31, 1031
Goldworthy, T. L. 409, 1011
Helman, D. W. 31, 1031
Goldworthy, T. L. 409, 1011
Helman, D. W. 31, 1031
Goldworthy, T. L. 409, 1011
Helman, D. W. 31, 1031 Kauffman,F.C. 519 Kaufman,D.G. 63,703,1481 Kaufmann,W.K. 703,1481 Kaur,S. 315 Kawabe,M. 1825 Kawamori, T. 2217 Kawamori, T. 2217 Kawanishi, S. 1497 Kawanishi, T. 1155 Kawase,K. 579 Kawata,S. 2121 Kelfkens, G. 2169 Kelley, M.R. 259

Kelloff, G. 995, 1019 Kelly, J.D. 1639 Kennan, W.S. 1261 Kenney, P.M. 1921 Kensler, T.W. 95,101,1783 Kerkvliet, N.I. 509 Khan, W.A. 1491 Kido, M. 851 Kienzl, H. 1643 Kiley,S.C. 1997 Kim,D.J. 787,1427 Kim, M.S. 1981 Kim, S.K. 1817 Kleihues, P. 1171,2467 Klein, C.B. 555 Kleinjans, J.C.S. 585, 1249 Kleman, M.I. 1619 Kligerman, A.D. 1731 Klish, D.S. 715 Knasmüller,S. 1643 Knecht, K.T. 515 Knize, M.G. 621 Knudsen, L.E. 1285 Koffel-Schwartz, N. 349 Koga, A. 2047 Kohl, C. 1091 Koike, A. 579 Kok.F.J. 303 Kokkinakis, D.M. 759 Komori, A. 2443 Konishi, Y. 1227, 1365 Kopp-Schneider, A. 973 Koppang, N. 1957 Kortenkamp, A. 307 Kosahara, K. 2047 Kosaka, T. 2313 Kotrappa, L. 2347 Kovalszky, I. 773 Kovatch, R.M. 1101, 1293, 2107 Krausz, K.W. 2161 Krča,S. 69 Kress,S. 477,1903 Kriek.E. 987 Krishnan, V. 2233 Krokan, H.E. 1769 Krzystyniak, K. 2335 Kudo, H. 873 Kulesz-Martin, M.F. 2003 Kulkarni, N. 995, 1019 Kumar,R. 1331,2179 Kumar,S. 2021 Kumari, H.L. 489 Kuppusamy, P. 395, 1701 Kurelec, B. 69 Kurian, P. 489 Kurihara, N. 827 Kuroiwa, A. 851 Kurokawa, Y. 333 Kushida, H. 793, 913 Kuykendall, J.R. 2095 Kwei, G. 519 Lachapelle, M. 2335 Laconi, E. 2459 Lafleur, M.V.M. 751 Lakshmi, V.M. 1235,2087 Lam.L.K.T. 1921 Lamers, C.B.H.W. 1525 Lamprecht, S.A. 2293 Lankelma, J. 1249 Lapis, K. 773,1281 Lapré, J.A. 41 Larsen, J.C. 629 Larsson, P. 1345 Laskin, J.D. 947,963,2183 Lau, H.H.S. 895 Lautier, D. 227, 1557

Laval, J. 1455 Laver, G.W. 1241 Lawson, T. 223 Ledda-Columbano, G.M. 379 LeDoux, S.P. 1967 Lee, E. 2367 Lee, M.-S. 2017 Lee, T.-C. 2053 Lee, Y.-W. 555 Lefrançois, D. 767 Leikauf, G.D. 189, 1859 Lengyel, H. 2403 Lettrem,I. 1769 Levay, G. 1937 Levis, A.G. 1569 Levy, G.N. 159,1887 Levy, J. 2293 Levy, L.S. 1667 Lewis, I. 2221 Ley, K.D. 183 Li,D. 1191 Li,S.-L. 1981 Li,Y.Q. 361,2305 Liebross, R.H. 2113 Liehr, J.G. 601 Lijinsky, W. 1101, 1293 Likhachev, A.J. 1265 Lin, E.L.C. 1325 Lin,R.I. 1847 Lin,X. 555,1763 Lindeskog, P. 171 Lindhe,B. 171 Lindroos,P. 139 Lineen, A.M. 1583 Ling-Ling, C. 837 Link, C.J.Jr 1975 Linville, D.W. 935 Lipp,H.-P. 453 Little, J.B. 923 Liu,J. 1847 Liu,L. 533,2137 Liu, T.-M. 1817 Loechler, E.L. 1415 Löfgren, M. 2463 Loft, S. 1561, 2241 Logsdon, D.L. 2107 Lohman, P.H.M. 457,2407 Lok.E. 1735 Loktionov, A. 19 Loomis, C.R. 1113 Lord, P.G. 1383, 2427 Löser, E. 943 Lou, Y.-R. 947 Loucheux-Lefebvre, M.-H. 349 Loughlin, J.M. 1383 Love-Hunt, A. 101 Lowry, D.T. 2145 Lu.S.-J. 857 Lubet,R.A. 1893 Luccioni,C. 767 Lucier,G.W. 2009 Ludeke, B.I. 1171,2467 Luebeck, E.G. 1007 Lund, L.G. 637 Luscher, P. 227 Lutz, W.K. 193,2211 Lyn-Cook, B.D. 1869, 2419 Ma,Q. 2205 Macatee, T.L. 1651,2281 Mackay, W. 1415 MacLeod, M.C. 1817 Maekawa, A. 501 Magee, P.N. 2153 Mahmoud, M.I. 1599 Mahr, J. 477 Makino, T. 2047

Malaveille, C. 2317

Malcolm,S. 1735 Mallardo, M. 439 Malorni, A. 1397 Manabe,S. 827 Mandel, H.G. 1853 Manjanatha, M.G. 819 Manjeshwar,S. 2287 Mann, A.M. 1651, 2281 Mann, D.B. 1529 Mannervik, B. 1549 Manzo, L. 417 Maples, K.R. 2035 Marasas, W.F.O. 433 Marcus, C. 297 Margison, G.P. 483 Maronpot, R.R. 1389, 2427 Marsden, A.M. 1383 Marsman.D.S. 1011 Martel, N. 19 Martinotti, G. 883 Maruyama, H. 1365 Mascharack,P. 1743 Mason,G.G.F. 1619 Massey,T.E. 533 Masuda, T. 787 Masui, T. 1651, 2281 Matsuda, Y. 2121 Matsumoto, H. 2313 Matsunaga, T. 845 Matsushima, Y. 501 Matsuzawa, Y. 2121 Mattern,J. 1947 Mayben, J.P. 63 Mayol, X. 2381 McCrary, J.-A. 2375 McCreary, R.D. 1437 McLellan, L.I. 2255 McManus, M.E. 1199 McMullen, E. 1241, 1735 McNee, W. 1035 Meerman, J.H.N. 751, 1699, 1759 Megosh,L. 51 Mehrotra,N.K. 131 Mehta,R. 1241 Meijers, M. 1525 Melvin, W.T. 165 Mende, P. 2179 Mesirca, R. 1403 Meyer, U.A. 1713 Meyer-Siegler, K. 2127 Michalopoulos, G.K. 139 Middlestadt, M.V. 1185 Miller, B.J. 2471 Mills, K. 1035 Mills, K.J. 1113 Milner, J.A. 1847 Milo, G.E. 489 Milone, A. 1397 Minchin,R.F. 663 Mirzayans,R. 1185 Misra, M. 283 Mitchell, D.L. 1975 Mitchell, J. 51 Mitchell, J.M. 947 Mitra,S. 1989 Mitsui, M. 1155, 2133 Mitsumori, K. 501, 569, 1379 Mittelstaedt, R.A. 819 Miura, K. 579 Miwa, K. 2313 Miyata, R. 2313 Miyazaki, I. 2313 Mizumoto, Y. 1227 Molloy, C.J. 963 Monden, Y. 1025 Mongeau, R. 1735 Montesano, R. 891

Moolgavkar, S.H. 1007 Moore, M.A. 309 Moorthy, B. 1191 Morgan, D.L. 2145 Morgan, R.G.H. 1519 Morgenstern, R. 1719 Mori, H. 2217 Mori, Y. 2217 Morichetti, E. 2175 Morimoto, K. 1663 Morris, C.J. 621 Morris, D.L. 1 Morten, J.E.N. 483 Mosebrook, D.R. 1075 Moss, J.E. 1035 Mostafa, M.H. 877 Mufti, S.I. 1811 Mukhtar, H. 1491 Mulder, G.J. 1699, 1759 Müller, C. 57 Müller, G. 57 Müller,O. 1903 Müller, W.E.G. 69 Murakami, T. 851 Murphy, L.C. 2081 Murray, A.W. 1907 Murray, B.P. 2221 Murray, G.I. 165 Mustonen, R. 1951 Myrnes, B. 1769 Nagai,F. 1469 Nagao,M. 793,913,1427 Nair,J. 1001 Nairn, R.S. 1975 Naito, M. 525 Nakae, D. 1227, 1365 Nakagawa, A. 1469 Nakamura, T. 837 Nakano, M. 391 Nakata, T. 1941 Nakatsu, Y. 289,837 Nakayama, F. 2047 Nandi, S. 1743 Narisawa, T. 2217 Narita, T. 265 Narod,S. 145 Naruse T. 579 Natarajan, A.T. 1625 Neal, G.E. 1853, 2381 Nechay, P. Negishi, K. 1615 Negishi, T. 1433 Nelson, G.B. 1731 Nemec,M. 205 Nemoto, N. 2249 Nera, E.A. 1735 Nesnow.S. 1731 Nettesheim, P. 1725 Neumann, I. 373 Newmark, H. 947 Newton, M.A. 1933 Newton, R.K. 819 Nicklas, W. 1835 Nicole, P. 341 Nicotera, P. 417 Nilsson, H. 1461 Nilsson, K. 1751 Ning, S.M. 1409 Nishida, T. 1941 Nishikawa, A. 369, 1155, 1379, 2133 Nishiwaki, R. 2443 Nomura, T. 845,851 Norpoth, K. 57,2191 North, S.L. 283 Norton, T.R. 107 Novak, R.F. 2375

O'Brien, P. 307 O'Brien, T.G. 51 O'Connell,S.M. 51 O'Connor, P.J. 361,877 O'Connor, P.J.O. 2305 O'Grady, J.F. 783 O'Hare, M.J. 907 O'Neill,I. 683,2353 O'Neill, I.K. 395 O'Riordan, M.A. 1509 Oates, P.S. 1519 Ochiai, M. 1427 Oda. Y. 979 Odeleye, O.E. 1811 Oesch,F. 271,831,1549 Ogasawara, H. 501 Ogawa, T. 2047 Ohgaki, H. 2353, 2467 Ohmori, H. 851 Ohno, Y. 333 Ohshima, H. 1001 Ohta, T. 2443 Okabe, S. 1841 Okada,S. 391 Okamiya,H. 569 Okamura, T. 2281 Okazaki,S. 1825 Okudaira,K. 1663 Okumura, M. 1043 Okuyama, H. 579 Olson, G.R. 1325 Omiecinski, C.J. 675 Onodera,H. 501 Orner,G.A. 1639 Orrenius,S. 417 Orton, T.C. 1383, 2427 Orzechowski, A. 2227 Otsuka, C. 905 Ottova,L. 153 Oughton, J.A. 509 Ouwerkerk, J. 1257 Overvad, K. 2241 Övervik, E. 1619 Pan, J. 901 Panades, J. 493 Pang,J. 497 Pani.P. 385,1929,2459 Paolini, M. 1403 Parish, J.H. 605 Park, N.-H. 1981 Park, S.S. 297 Parker, P.J. 1997 Parshad, R. 1137 Pashko, L.L. 1925 Paterson, M.C. 1185 Pathak, D.N. 1593 Pavanello,S. 1569 Pearl,L. 2067 Pečar, S. 205,211 Pector, J.-C. 241 Pegg, A.E. 1455 Pelling, J.C. 2075 Peltonen, K. 2347 Pennetier, J.L. 321 Penning, T.M. 1575 Pepin,P. 341 Perchellet, E.M. 715 Perchellet, J.-P. 715 Perera, F.P. 2041 Périn, F. 723 Périn-Roussel, O. 723 Perrin,J. 811 Persson,L. 153 Petroni, D. 883 Petruska, J.M. 1075 Pfau, W. 907 Pfundstein, B. 563

Phillimore, H.E. 1917 Phillimore, H.E. 1917 Phillips, D.H. 907, 1127, 2197 Phillips P.K.S. 731 Phillips, R.K.S. 731 Pichiri-Coni, G. 497 Pieper, R.O. 259 Piñol, C. 493 Pirollo, K. F. 1273 Pirollo, K.F. 1273
Pitot, H.C. 125, 739, 1389
Pivčevic, B. 69
Poirier, L.A. 1869, 2419
Poli, G. 799
Pongracz, K. 315, 1937
Pool-Zobel, B.L. 2435
Popanda, O. 2321
Popovich, I. 19
Popp, J.A. 409, 1011
Popp, W. 57, 2191
Porsch Hällström, I. 171
Portier, C.J. 973 Portier, C.J. 973 Potten, C.S. 361,2305 Potter, M. 1681 Potter, P.M. 483
Poulsen, H.E. 1561, 2241
Pour, P.M. 1829
Povey, A.C. 395, 469, 1701
Pozzetti, L. 1403
Prákash, A.S. 425
Prétat, V. 241
Pretlow, T.G. 1509
Pretlow, T.P. 1509
Preussmann, R. 563, 1331, 2179, 2435
Price, F.M. 1137
Prim, M. 493
Rubin, H. 1873
Rubin, H. 1873
Ruchirawat, S. 309
Rumsby, P.C. 1917
Ruocco, M.R. 439
Ruoppolo, M. 1397
Ryder, L.P. 1285
Sabbioni, G. 709
Sabourin, P.J. 1633
Sadler, V.M. 403
Safrieh, N. 220
Safe, S. 2233
Sagelsdorff, P. 969 Potter, P.M. 483 Price, F.M. 1137
Prim, M. 493
Primiano, T. 2375
Prinsen, M.K. 669
Probst, M.R. 1713
Prokopczyk, B. 369,863
Prout, K. 1775
Przybyszewski, J. 2003
Pung, A. 1107
Punnopen K. 2367 Punnonen, K. 2367 Qu,W. 519 Quinto, I. 439
Rabes, H.M. 1177
Rafferty, J.A. 483
Rahman, A. 605
Rahman-Mansur, N. 2127
Raicht, R.F. 45
Rajalakshmi, S. 497,2287
Randerath, K. 125,1191
Rani, A. S. 2021
Rao, M. S. 265
Rao, P. M. 497,2287
Raso, E. 1281
Ratnayake, W. M. N. 1735
Ravelingien, N. 241
Reade, P. C. 783
Reddel, H. 1359
Reddel, H. 1359
Reddel, R. 1359
Reddy, J. K. 265
Reifferscheid, G. 2389
Reith, A. 1957
Rendell, N. B. 2221
Rexroat, M. A. 935, 1277
Reznikoff, C. A. 447, 955
Rhim, J. S. 1137
Rice, J. M. 1351, 1893
Rice, R. H. 2029
Rich, K. 1137
Sannolo, N. 1397
Sannel, T. 199, 1803
Sannor, T. 199, 1803
Sannor, T. 199, 1803
Sanner, T. 199, 1803
Sanne Quinto,I. 439 Rabes,H.M. 1177

Riegar, R.A. 2361 Rinderle, S.J. 1337 Rinehart, C.A. 63 Ringer, D.P. 107, 1699 Ritter-Hrncirik, C. 277 Rivedal, E. 199, 1803 Rivenson, A. 369, 669, 1957 Robertson, F. M. 51 Robinson, V. A. 2145 Roe, D. A. 2277 Roe,D.A. 2277 Roebuck,B.D. 95 Rojas,M. 929 Romero,A. 2381 Romert,L. 1719 Roper,M. 621 Rosa,S. 87 Roseng,L.E. 1803 Ross,J.A. 1731 Roseng, L.E. 1803 Ross, J.A. 1731 Rossi, A. M. 1625 Rossi, O. 1371 Rovati, L.C. 1525 Roy, D. 601,1593 Rubin, H. 1873 Ruchirawat, S. 309 Rumsby, P.C. 1917 Safe, S. 2233 Sagelsdorff, P. 969 Saglio, G. 883 Sai, K. 333 Said, H. K. 1599 
 Scharping, C.E.
 1199

 Scherer, E.
 2101
 Spurr, N.K.
 1035

 Schilderman, P. A.E. L.
 585
 Srivastava, S.
 1273

 Schiller, C.D.
 1091
 Stacchini, A.
 883

 Schatter, J.
 2211
 Stampfer, M.R.
 1137

 Schmeiser, H.H.
 1221,1657,1835
 Stancel, G.M.
 601

 Schmeiding, W.
 57,2191
 Stanley, L.A.
 2427

 Schrenk, D.
 453,2227
 Stapley, R.
 1241

 Schroth, P.
 867
 Stavenuiter, H.J.F.C.
 169

 Schulte-Hermann, R.
 1643
 Stegeman, J.J.
 505,2395

 Schultz, M. E.
 2395
 Stein, J.E.
 1475

 Steinberg, P.
 271,831
 Schwarz, M. 477,691,1903

Scott, F.W. 1735 Segerbäck, D. 1587 Seglen, P.O. 1795 Seidel, A. 1549 Sekiguchi, M. 289,837 Sekijima, M. 787 Self, R. R. 107 Semple, E. 433 Shany, S. 2293 Sharma, P.K. 1337 Shaw,K.L. 895 Shé,M.N. 1127 Shé,M.N. 1127 Shellard,S.A. 1209 Sherman,J.H. 83 Shi,S. 901 Shirlian, J.H. 83
Shi, S. 901
Shibata, M. 1825
Shimada, T. 217,979,1789
Shimizu, T. 1941
Shinagawa, N. 579
Shinoda, K. 569
Shirai, T. 1043,1427
Shiraishi, A. 289
Shivapurkar, N. 887
Shou, M. 1575
Siddiqi, M. 1331,2179
Sidik, K. 135
Silingardi, P. 1403
Simons, J. W. I. M. 2407
Singh, M. 1535
Singh, V. N. 2041
Sinha, D. K. 2449
Sirover, M. A. 2127
Skipper, P. L. 917
Skog, K. I. 2263 Skog, K.I. 2263 Skow, L. 525 Slupphaug,G. 176 Smart,R.C. 1113 Smerdon,M Slaga, T.J. 1265 Smerdon, M.J. 135, 1529 Smerdon, M.J. 135,1529 Smith, A.D. 1775 Smith, A.G. 247,1917 Smith, C.A.D. 1035 Smith, L.L. 2197 Smith, P.G.J. 1879 Smith, R.A. 2281 Smith, T.J. 901,1409,2141, 2205 Smith Jr.J.S. 189,1859 Snyder, C.P. 165 Sohani, S. 2087 Somich, G.A. 1509 Sone, H. 793 Sone, T. 2017 Spiegelhalder, B. 1331,2179 Spiegelhalder, B. 1331,217 Spigelman, A.D. 731 Springer, D.L. 1529,2375 Steinberg, P. 271,831 Steiner, S. 119,969 Stenius.U. 1751 Stephens, R.E. 33 Stevsner, T. 1967 Stiborová, M. 1221, 1657

Stober, J.A. 1325 Stokke, T. 1795 Stoner, G.D. 1583 Stopera, S.A. 573, 1863, 2081 Strawhecker, J.M. 2075 Suga, T. 265 Suganuma, M. 1841, 2443 Sugie,S. 2217 Sugimura, T. 793,913,1025,1427 Sugiyama, T. 1941 Sun, J.D. 1217 Sun, Y. 1503 Sunahara, G.I. 1083 Suzuki, K. 1941 Suzuki, M. 913 Svetek.J. 211 Swaminathan,S. 955,1705 Swann, P.F. 2067 Swedmark, S. 1719 Swenberg, J.A. 727 Syrjänen, K. 233 Syrjänen, S. 233 Szallasi, Z. 2161 Szeberenyi, S. 773 Szeverenyi, N.M. 277 Taieb, A. 321 Takahashi, A. 1663 Takahashi, M. 569, 1155, 1379, Takahashi, S. 913, 1427, 1513, 1825 Takahashi, T. 1663 Takashima, Y. 1365 Takeyama, H. 579 Tamura,K. 1227 Tamura,S. 2121 Tanabe,F. 1433 Tanaka,T. 2217 Tang, Z.C. 887 Taniguchi, N. 1941 Tannenbaum, S.R. 917 Tarroux, P. 321 Tatematsu, M. 1841 Tates, A.D. 1625 Tatsumi, H. 1941 Tee, L.B.G. 1519, 1879 Teitel, C.H. 663 Tempero, M.A. 1829 Ten Hoer,F. 585 ten Hoor,F. 1249 Tessitore, L. 385,1929 Thamavit, W. 309 Thenet,S. 767 Thielmann, H.W. 2321 Thierau, D. 373 Thijssen, J.C.P. 1625 Thomas, B.J. 1101, 1293 Thomas, D.J. 447 Thomas, G.A. 1039 Thomas, P.E. 1409, 2205 Thompson, H.J. 1535 Thrall, B.D. 1529 Thurman, R.G. 519 Thurmon, J.C. 2153 Tillapaugh-Fay, G.M. 277 Timar, J. 1281 Timmerman, A.J. 457 Tjälve, H. 1345 Tjønneland, A. 2241 Tjøtta, K. 779 Todd, G.C. 935 Toftgård, R. 651 Tohyama, K. 827 Tokumo, K. 1019 Tomasi, A. 799 Tomatis, L. 19,145

Tompa, A. 2435

Tong, Y.A. 1273 Toraason, M.A. 1047 Toshkov, I. 271 Tricker, A.R. 563 Trudel, L.J. 917 Trush, M.A. 1075 Tsai, W.H. 139 Tsao, M.-S. 1705 Tsuchida, S. 265 Tsujii,T. 1227 Tsujimura,T. 579 Tsujiuchi,T. 1365 Tsuruga, N. 579 Tsutsumi, M. 1365 Turesky, R.J. 2353 Tyrrell,R.M. 227,1557 Uchiyama,S. 333 Uemura, D. 1841 Ueno, Y. 787 Ugarković, D. 69 Umemoto, A. 1025 Upadhyaya, P. 2271 Ushiyama, K. 1469 Vaca, C. E. 593, 2463 Vahrenholz, C. 57,2191 Vainio, H. 929 Vallis, K.A. 1035 van Balderen, P.J. 303 Van Benthem, J. 2101 van Dam, F.J. 1625 van de Poll, M.L.M. 751 van Delft, J.H.M. 1257 van den Broeke, L.T. 1759 van den Ende, A.M.C. 1257 van der Leun, J.C. 2169 Van der Meer,R. 41 Van der Meeren, A. 1359 van der Schans, G.P. 457 van Garderen-Hoetmer, A. 1525 van Gog,F. 751 van Golen, K.L. 125 van Leeuwen, F.E. 987 van Loon, A.A.W.M. 457 van Maanen, J.M.S. 1249 van Nesselrooij, J.H.J. 277 van Poppel, G. 303 van Schooten, F.J. 987 Van Veld, P.A. 505 van Zandwijk,N. 987 van Zeeland,A.A. 1625 Varanasi, U. 1475 Vedejs, E. 1261 Venitt, S. 731, 2197 Vermeulen, E. 2101 Veser, U. 807 Viñas-Salas, J. 493 Vincens, P. 321 Vincze, I. 773 Vineis, P. 2317 Vistisen, K. 1561,2241 Vodička, P. 593 Vogelbein, W.K. 505 Volm, M. 1947 Vrieling,H. 751,1625 Vuillaume,M. 321 Wacker,C.-D. 2179 Wada, O. 827 Wakabayashi, K. 793,913 Walker, C. 25 Walker, M.P. 2009 Walker, S.E. 525,617 Wall, K.L. 519 Walsh, A.A. 2029 Wang, C. 1503 Wang, C. Y. 2017 Wang, E. 2205 Wang, J. C. 251,1301

Wang,L. 233 Wang,L.W. 2041 Wang, M. 1909 Wang, X.-W. 555 Wang, Y. 1583 Wang, Z. Y. 901,1491,2183 Wani, A. A. 463 Wani, G. 463 Ward, J.M. 1541, 1893 Ward, T.H. 483 Ward Jr,J.B. 1 Wårngård,L. 657,2299 Warren, B.S. 1265 Wassén, C. 153 Wassermann, K. 1285, 1967 Watson, A.J. 483 Watson, R.R. 1811 Watson, W.P. 119 Watta-Gebert, B. 943 Weaver, R.J. 165 Weber, W.W. 159,1887 Weghorst, C.M. 1541 Weisburger, J.H. 669 Welch, K. 9 Weller, R.O. 1171 Wells, R.L. 643 Wenders, J.J.M. 585 Wetterhahn, K.E. 1159, 1319, 2113 Wey, H.E. 189, 1047, 1859 White, A.D. 1095 White, I.N.H. 2197 Whorton Jr, E.B. 1 Wiench, K. 867 Wiener, F. 1681 Wierckx, F.C.J. 1759 Wierckx, F.C.J. 1759 Wiessler, M. 867, 1221, 1657, 1835 Wild,C.P. 891,2101 Wild,D. 709,1713 Wildschutte, M. 917 Williams, D.E. 1639 Williams, E.D. 1039 Willis, J.K. 1217 Wilson, G.L. 1967 Wilson, V.L. 395 Winterwerp, H.H.K. 2101 Winton, D.J. 361,2305 Wise, C.K. 1887 Witiak, D.T. 1337 Wolf, C.R. 1035 Woo, A. 1705 Woodin, B.R. 505 Woutersen, R.A. 1525 Wu, C.-W. 2053 Wu,M. 863 Wu,Y. 233 Wurzer, J.C. 2127 Xu,X. 1389 Xu,Y. 1269 Yabe, T. 787 Yada, H. 1513 Yagi, H. 895 Yakushiji, M. 1941 Yamada, J. 265 Yamada, S. 1043 Yamada, Y. 1171 Yamamoto, K. 1497 Yamamoto, S. 251, 355, 905, 1301 Yaman,S. 57 Yamanaka,K. 391 Yamasaki,H. 19,145 Yamashita, K. 1025 Yamazaki,H. 979,1789 Yamazoe, Y. 1307 Yang, C.S. 901,947,1409,2141,

2205

Yang, J. 1743 Yang, J.-L. 2053 Yano, K. 699 Yatsunami, J. 1841, 2443 Yeoh, G.C.T. 1519, 1879 Yokoyama, Y. 265 Yoshiji, H. 1227, 1365 Yoshimi, N. 2217 Yoshimura, H. 569, 1379 Yoshizawa, S. 1841 You, M. 1583 Young, T.L. 2041 Youngman, L.D. 1607 Yuan Wang, Z. 947 Yun, C.-H. 217, 1789 Yura,J. 579 Yuspa, S.H. 2145, 2367 Zabezhinski, M. 19 Zacharias, D.E. 1775 Zajdela,F. 723 Zalatnai, A. 773 Zang, E. 369,995 Zangar, R.C. 2375 Zapisek, W.F. Zarba, A. 891, 1031 Zarnegar, R. 139 Zeindl-Eberhart, E. 1177 Zenser, T.V. 447, 1235, 2087 Zerban, H. 2329 Zhang, J. 1921 Zhang, L.-H. 609 Zhang, L.-X. 1107 Zhang, Y. 703, 1481, 1503 Zhao,Q. 233 Zhao,R. 1817 Zheng, G. 1921 Zhitkovich, A. 1485,2341 Zhou, S. 901 Zhu,Q. 233 Zhu,S. 1725 Zhuang, Z. 1763 Zijno, A. 87 Zou, Z.-Q. 1273 Zukowski, K. 2017 Zweier, J.L. 395, 1701 Zwickenpflug, W. 1961 Zwijsen, R.M.L. 1913



## Annual subject index

(+)-Anti-B[a]P-N2-Gua

mutagenesis in E.coli plasmid 1415

(pre) Neoplastic lesions

loss of peroxisomal enzyme expression induced by peroxisome proliferators 265

1,2,3,4-Tetrahydro-7,

12-dimethylbenz[a]anthracene, carcinogenicity modulation by fluorine substitution 1337

1,2-dithiole-3-thione, enzyme inducer, inhibition of aflatoxin-induced hepatic tumorigenesis 95 1,2-dithiole-3-thione, predicts chemoprotection of molecular dosimetry of

aflatoxin-N7-guanine aflatoxin-albumin adducts 101 1-Methyl-1-nitrosourea

effect of age at induction of mammary carcinogenesis 1535

1-Nitrosopyrene

-induced mutations in hprt gene 819

11-Methylbenzo[a]pyrene

bay region distortions 1775

12-Deoxyphorbol 13-esters

tumor promotion 2161

12-O-Tetradecanovlphorbol-13-acetate

-induced transformation in murine epidermal JB6 cells, carbaprostacyclin inhibition 1859

-induced transformation sensitive, murine epidermal JB6 cells exhibit arachidonic acid metabolism 189

inhibition of intercellular communication 719

neutrophil activation of epidermal cell toxicity 1671

ornithine decarboxylase induction in specific subpopulations of epidermal phenotypic expression of epidermal-tumour cells 1301

1,2-Dimethylhydrazine

-induced colon carcinogenesis, effects of aspirin 541

-induced colon carcinogenesis, pectin/guar gum dietary supplementation

treated rats used for colon carcinogenesis, ear tumours 493 1,25-Dihydroxyvitamin D<sub>3</sub>

protective role in rat colon carcinogenesis 2293

1.3-Butadiene

interspecies comparison of biotransformation 1143

1,4-Dichlorobenzene

administration, mitogenic stimulation of hepatocellular proliferation 409

2,3,7,8-Tetrachlorodibenzo-p-dioxin

promotion characterization of altered hepatic foci in female rat 1389

2-Acetylaminofluorene

treated rats, aryl hydrocarbon/polycyclic aromatic hydrocarbon levels in polyploid/diploid hepatocytes 807

2-Amino-4-(5-nitro-2-furyl)thiazole

transformed bladder cells, ras activation 1651

2-Aminofluorene

-DNA adducts, mouse urinary bladder-age/sex/acetylator phenotype 159

2-Bromoacrolein

thymidine adducts 2361

2-Nitrofluorene

photoactivation in rat: covalent binding to RNA/protein 1759

2-O-Octadecylascorbic acid

suppression of spontaneous hepatocellular carcinoma development 913

2' Deoxyguanosine-3'-phosphate

N<sup>2</sup>-substituted adducts, identification by styrene-oxide-treated DNA <sup>32</sup>Ppostlabelling 315

2'-Deoxyguanosine

oxidation with hydrogen peroxide, nickel(II) and 1-histidine enhancement

reactions with pyridine, 2-amino-1-methyl-6-phenylimidazo[4, 5-b] and

2'-Deoxyguanosine-3'-monophosphate

determination of malonaldehyde-modified by 32P-postlabelling 593

2,3,7,8-Tetrachlorodibenzo-p-dioxin

aflotoxin toxicity in epidermal cells 2029

32P-Postlabelling

analysis of mammary glands DNA adducts parous mice/nulliparous mice treated with benzo[a]pyrene 2009

analysis of norharmam inhibition of dibenzo[a,e]fluoranthene-DNA

analysis of Sudan I-DNA adducts 1221

assay and human biomonitoring 1053

assay storage phosphor imaging technique for DNA adducts 1475 combined with immunoaffinity purification for Ob-methylguanine

detection in DNA 469

detection of DNA adducts induced by fecapentaene-12 aerobic decomposition 395

determination of malonaldehyde-modified

2'-deoxyguanosine-3'-monophosphate/DNA 593

DNA adduct enrichment procedures 2459

in urothelium/exfoliated cells in aristolochic acid I treated rat urine 1835 of DNA adducts induced by Fenton-type oxygen radical-generating

of DNA adducts/tRNA adducts by N,N-dimethyl-4-aminoazobenzene

of styrene-oxide-treated DNA, identification of N2-substituted 2' deoxyguanosine-3'-phosphate adducts 315

technique, covalent binding in DNA by o-phenylphenol 1593

4,4'-Methylene-bis(2-chloroaniline)

contributions of human liver cytochrome P450 enzymes to N-oxidation 217

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone

-induced DNA strand breaks, glutathione modulation 1447 biliary excretion in rat 1961

correlation between DNA methylation/hepatocarcinogenesis 2137 metabolism, kinetics/enzyme involvement in lung/nasal mucosa 1409

4-Aminobiphenyl

-DNA adducts, application to immunoaffinity chromatography 917 administration, effects on DNA adduct levels and acetylator phenotype

4-Nitroquinoline 1-oxide

mutation spectra of guanine adducts in E.coli 349

4,4'-Methylenebis(2-chloroaniline)

-DNA adducts, characterization 1587

5'-Amino-5'-deoxythymidine

carbamoylation reactions of N-methyl-N'-aryl-N-nitrosoureas and phenyl isocyanates 699

6-Mercaptopurine

enhancing effect on focal lesion development in cirrhotic liver 1365

7,12-Dimethylbenz[a]anthracene

-induced mammary tumors and DNA adducts inhibition by garlic 1847 -induced ovarian cancer, manganese superoxide dismutase expression

7-(4-oxobutyl)guanine

formation in hepatic DNA of N-nitosopyrrolidine treated rats 1909

7,12-Dimethylbenz[a]anthracene

abrogation of killing and neoplastic transformation of C3H10T1/2 cells

chemoprevention by curcumin 2183

with ras oncogene activation, transplacental/transgeneration effect 19

8-Hydroxydeoxyguanosine

formation within mouse DNA by UVB/H2O2 2003 induction in Ah-responsive mouse liver by iron/Aroclor 1254 247 production in DNA by chromium (VI) and (V) 1667

8-Hydroxyguanine assays

phenol sensitization of DNA to oxidative damage 1289

8-Oxodeoxyguanosine levels

in lung DNA of butanone,4-(methylnitrosamine)-1-(3-pyridyl)-1-treated F344 rats/A/J mice 1269

α Glutathione S-transferase

aflatoxin B<sub>1</sub> alteration in diethylstilbestrol exposed rats 2375

o-Thrombin

morphological transformation BALB/c 3T3 cells, human 1

 $\beta$ -Hydroxy- $\beta$ -methyl-glutaryl

coenzyme A, hypomethylation during hepatocarcinogenesis 497

[14C]3-BHA

dose-response study following oral administration on covalent binding-forestomach protein 1663

DL-Ethionine-supplemented

choline-deficient diet, persistence of cholangiocellular/hepatocellular

L-Histidine

and nickel(II) enhancement of 2'-deoxyguanosine oxidation with hydrogen peroxide 283

A simple assay

for DNA-protein crosslink detection 1485

Abasic sites

methoxyamine modification protects CHO cells 87

Abberrant crypt

correlates with tumour incidence in azoxymethane/phytate treated rats 1509

formation, effect of high-/low-risk diet 887

Aberrant crypt, foci

associated with increased c-fos expression in preneoplastic lesions in colon carcinogenesis 573 ras oncogene expression 1863

Acetaldehyde

reaction kinetics of DNA-histone crosslinking 2095

12-O-tetradecanoyl-phorbol-13, gap junctional communication regulation in embryo cells 199

Acetoxime

metabolism by cytochrome P450 enzymes to propane 2-nitronate 1091 Acetylaminofluorene

promotion, choline enhancement of liver carcinogenesis 385

Acetylation polymorphism

human, role in metabolic activation of quinolone,

2-amino-3-methylimidazo[4,5-f] 1713

Acetylator phenotype

and DNA adduct levels following 4-aminobiphenyl administration 1887 Acrolein

thymidine adducts 2361

Active oxygen species

generation in vitro by potassium bromate interaction 333

Adenocarcinoma

sex-dependent metastatic preputial gland, development/characterization 1281

Adenylate cyclase activity

in liver membrane during hepatocarcinogenesis 241

Adrenalectomy

tumour promotion 1925

Advancement strategies

of short-term mutagenicity tests 1403

Aerosol inhalation

formation of aflatoxin B<sub>1</sub>-DNA adducts 1031

Aflatoxin-albumin adduct

molecular dosimetry predicts chemoprotection by 1,2-dithiole-3-thione

Aflatoxin - N7-guanine

molecular dosimetry predicts chemoprotection by 1,2-dithiole-3-thione 101

Aflatoxin B<sub>1</sub>

-DNA adducts formation following aerosol inhalation 1031

-DNA adducts in parenchymal/non-parenchymal cells, in vivo formation

-induced gamma-glutamyltranspeptidase positive hepatic foci, inhibition by low protein diet 1607

α glutathione S-transferase alteration in diethylstilbestrol exposed rats 2375

administered in methyl-deficient rats, liver DNA adducts 1241

bioactivation by lipoxygenases, prostaglandin H synthase, cytochrome P450 monooxygenase in tissues 533

bioactivation in bovine olfactory mucosa 1345

dietary casein on carcinogenesis initiation 171

dietary effect in weanling rat liver 1853

Aflatoxin-induced

hepatic tumorigenesis, inhibition by enzyme inducer 1,2-dithiole-3-thione

Aflotoxin M<sub>1</sub>

in human breast milk 891

Aflotoxin toxicity

in epidermal cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin 2029

Ah-responsive

mouse liver, 8-hydroxydeoxyguanosine induction by iron/Aroclor 1254

AIN-76A diet

effect of fat on cellular proliferation in mammary gland/intestinal crypts 1735

Airborne particulate matter

inhibition of intercellular communication 719

Albumin

containing S-phenylcysteine: biological markers of exposure-benzene

Alcohol

effect on O6-methyldeoxyguanosine formation 1171

Alkylated DNA

molecular dynamics 2067

sequence-selective depurination, DNA interstrand cross-linking/DNA strand break formation 425

Alkylating agents

upregulation of Ob-alkylguanine - DNA alkyltransferase expression 483

Altered hepatic foci

growth in rats, endosulfan  $\beta$  and  $\alpha$  2299

promotion characterization by 2,3,7,8-tetrachlorodibenzo-p-dioxin in female rat 1389

mutagenic, structure-activity relationships 709

N-nitrosobis(2-hydroxypropyl), mutagenicity in V79 cells 223

N-nitrosobis(2-oxopropyl), mutagenicity in V79 cells 223

-DNA crosslinks, analysis induced by nickel/chromium compounds

sequences required for O6-methylguanine-DNA methyltransferase activity 837

Aminobiphenyl

adducts, inhibition of DNA replication 751

Amosite toxicity

human and asbestos-exposed mesothelioma cells are resistant 1359

Analogue

genotoxic potential 2197

Angiotensin

interaction with styrene oxide by mass spectrometry 1397

anthracene,7-bromomethylbenz[a]

involvement of prostaglandin E2 in ornithine decarboxylase 905

Antiestrogens

polynuclear aromatic hydrocarbon carcinogens in breast cancer cells 2233

Antitumour-promoting activities

of hydrolyzable tannins in mouse skin 715

Antitumour agents

expression of ribosomal phosphoprotein 259

Antitumour cytotoxicity

pregnancy-induced of T cell-rich fraction against mammary

adenocarcinoma cells in rats 2449

Antitumour drugs

effect of topoisomerase poisoning on DNA repair replication by mammalian cell extracts 1371

aprt gene

Chinese hamster, mutations recovered after carboplatin exposure 15

Arachidonic acid

effects of butylated hydoxyanisole in relation to gastrointestinal cell proliferation 585

Arachidonic acid, metabolism

exhibited by 12-O-tetradecanoylphorbol-13-acetate-induced transformation sensitive murine epiderma 189 regulation by SV40 urothelial cells 447

Aristolochic acid I

treated rat urine, 32P-postlabelling in urothelium/exfoliated cells 1835

Aroclor 1254

8-hydroxydeoxyguanosine induction in Ah-responsive mouse liver 247 Ha-ras codon 61 mutations in liver tumours 1917

Aromatic hydrocarbon receptor binding

electronic/thermodynamic aspects 1599

Aryl hydrocarbon

levels polyploid/diploid hepatocytes in 2-acetylaminofluorene-treated rats 807

Aryl sulfotransferase IV

covalent binding of N-hydroxy-2-acetylaminofluorene to rat liver 107 hydroxylamines/hydroxamic acids sulfation in liver cytosol 1699

Ascorbate

reduction of chromium(VI) in rat lung 1319

Asphalt fume condensates

inhibition of gap junctional intercellular communication in human epidermal keratinocytes 1047

Aspirin

effects on 1,2-dimethylhydrazine-induced colon carcinogenesis 541

Azaserine-induced pancreatic foci

response to raw soya flour 1519

Azaserine-induced pancreatic tumours

effect of cholecystokinin/bombesin 1525

Azides

mutagenic, structure-activity relationships 709

Azoxymethane

/phytate treated rats, aberrant crypts correlate with tumour incidence 1509

Azoxymethane-induced

colonic aberrant crypts, evidence for ras gene mutation 2081

BALB/c 3T3 cells

human α-thrombin promotes morphological transformation 1

Bay region distortions

11-methylbenzo[a]pyrene 1775

exposed markers, DNA damage sister chromatid exchange frequency 57 1,4-bis[2-(3,5-dichloropyridyloxy)], tumour-promoting/hepatocarcinogenic effect in N-nitrosodiethylamine initiated rats 1893

biological markers of exposure: S-phenylcysteine in albumin 1217

Benzo[a]pyrene

-DNA, increased binding through (+)-anti-

benzo[a]pyrene-7,8-diol-9,10-epoxide 297

-DNA adducts, DNA polymerase action 2347

induced tumorigenesis inhibition by myristicin 1921

32P-postlabelling analysis of mammary glands DNA adducts purous mice/nulliparous mice 2009

chemoprevention by curcumin 2183

cytochrome P4501A induction in tissue 2395

quinol diglucuronides in rat bile following intratracheal instillation 403 treated mouse skin, stimulation of transforming growth factor  $\beta_1$  mRNA concentration 83

(-)-Benzo[a]pyrene-7,8-diol

stereoselective metabolism by human lung microsomes/peripheral blood lymphocytes:effect of smoking 929

Benzo[a]pyrene diolepoxide

-DNA adducts identification/detection by conventional fluorescence methods 1817

polymerase ativities on modified DNA 1529

Benzo[a]pyrene metabolism

in psoriatic patients peripheral blood lymphocytes, influence of coal tar therapy 1569

Benzo[a]pyrene phenols

in vitro enhance peroxidase-mediated glutathione conjugation 515

Benzo[a]pyrene-7,8-dihydrodiol

peroxidase-mediated glutathione conjugation by benzo[a]pyrene phenols in vitro 515

Benzo[b]fluoranthene

administration, DNA adducts and sister chromatid exchange induction in rat 1731

Benzo[c]phenanthrene diolepoxides

glutathione conjugation by human glutathione transferases 1549

Benzo[c]phenanthrene-3,4-diol-1,2-epoxides

diastereomeric, modified DNA, selectivity of polyclonal antibodies 895

Benzoyl peroxide

copper dependent site-specific mutagenesis in supF gene 1783

Betal quid carcinogenesis - VIII

carcinogenicity of 3-(methylnitrosoamino)propionaldehyde in F344 rats

Bile

effects of familial adenomatous polyposis on rat intestine 731

**Biliary excretion** 

of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone in rat 1961

**Binding sites** 

cromium-DNA/protein in intact cells 2341

**Bioactivation** 

N-nitrosomethylbenzylamine, modulation by diallyl sulfide in vivo 2467 of aflatoxin B<sub>1</sub> in bovine olfactory mucosa 1345

Biological markers

of exposure-benzene: S-phenylcysteine in albumin 1217

Biotransformation

interspecies comparison of 1,3-butadiene 1143

Bisphenol A diglycidylether

treated mice, molecular dosimetry of DNA adducts 969

Bladder cancer

benzine-induced, role of N-glucuronidation 1235

Bladder cells

2-amino-4-(5-nitro-2-furyl)thiazole/formamide, N-[4-(5-nitro-2-furyl)-2-thiazolyl] transformed, ras activation 1651

Bladder DNA

promutagenic methylation damage from bladder cancer associated with schistosomiasis 877

Bleomycin

-treated cells, nucleosome rearrangement and repair patch ligation 135 initiation of hepatocellular foci 703

Blood group-A

bearing glycoproteins from pancreatic ductal adenocarcinomas 1829

Bombesin

effect on azaserine-induced pancreatic tumours 1525

Bovine olfactory mucosa

bioactivation of aflatoxin B<sub>1</sub> 1345

**BPDE-I-induced** 

modification inhibition of replicating DNA of S-phase cells 489

Breast cancer cells

polynuclear aromatic hydrocarbon carcinogens as antiestrogens 2233 Breast cancer tissues

composition and turnover of phospholipids and neutral lipids 579

Breast epithelial cells

O<sup>6</sup>-alkylguanine - DNA alkyltransferase depletion by O<sup>6</sup>-benzylguanine 1743

**Butadiene metabolites** 

(urinary), species differences 1633

Butanone, 4-(methylnitrosamino)-1-(3-pyridyl)-1-

inhibitory effects of diallyl sulfide 901

metabolism and rabbit nasal P450 2141

treated F344 rats/A/J mice, 8-oxodeoxyguanosine levels in lung DNA

tumorigenicity, effect of sulindac/oltipraz 341

Butylated hydroxyanisole

effects on arachidonic acid/linoleic acid metabolism related to gastrointestinal cell proliferation 585

**Butylated hydroxyanisole** 

glutathione S-transferase/glutathione peroxidase modulation in murine extrahepatic organs 2255

c-fos expression

increased associated with aberrant crypt foci in preneoplastic lesions in colon carcinogenesis 573

C-Ha-ras wild type

frequency, tumour promoters dieldrin/phenobarbital 477

C-myc gene

tumorigenic activity from T-cell leukemia 883

C3H10T1/2 cells

abrogation of killing and neoplastic transformation due to 7,12-dimethylbenz[a]anthracene 643

C57B1/6.I mice

flow cytometric analysis of thymic lymphosarcoma induced by N-methyl-N-nitrosourea 509

Caffeic acid

and o-dihydroxybenzene, influence on forestomach carcinogenesis 1825 causes metal-dependent damage-cellular/isolated DNA through H2O2 formation 1497

Caffeine

-derived N-nitroso compounds 2179

effect on pancreatic carcinogenesis 1379

Calcium chloride

inhibitory effect on gastric carcinogenesis after treatment with N-methyl-N'-nitro-N-nitroso 1155

Calculus formation

relationship to carcinogenesis in urinary bladder administered thymine/melamine 1043

Calf serum

spontaneous transformation of NIH-3T3 cells 1873

Caloric

restriction/ageing, modulating effects on cellular proliferation/transformation 2419

CAMP

effect on morphological transformation/gap junctional communication in hamster embryo cells 1803

Cancer cells

stress response a factor in genetic instability 2407

Cancer incidence

differential in intestine 2305

Cancer prevention

comparison of selenium/sulfur analogs 1167

Cancer susceptibility

relationship to debrisoquine hydroxylase polymorphism 1035

Cancer-initiating potential

fumonisin B mycotoxins 433

Candida albicans

as promoter of oral mucosal neoplasia 783

Carba-prostacyclin

inhibition of 12-O-tetradecanoylphorbol-13-acetate-induced transformation in murine epidermal JB6 1859

Carbamoylation reactions

of N-methyl-N'-aryl-N-nitrosoureas and phenyl isocyanates to 5'-amino-5'-deoxythymidine 699

Carbon tetrachloride

cirrhosis, modification of diethylnitrosamine-induced hepatocarcinogenesis

induction of lesions in rat liver 793

Carboplatin exposure

mutations recovered in Chinese hamster aprt gene 15

Carcinogen-DNA adducts

formation, O-acetylation of N-hydroxy arylamines 663

Carcinogen screening complementary value of Ke test 2059

Carcinogenesis

initiation, influence of dietary casein with aflatoxin B<sub>1</sub> 171

Carcinogenic effects

of coal tar pitch in rat respiratory tract by intratracheal instillations 233 transplacental of nickel(II) acetate in F344/NCr rats 1351

Carcinogenic risk

transgeneration transmission 145

Carcinogenicity

modulation in 1,2,3,4-tetrahydro-7,12-dimethylbenz[a]anthracene by fluorine substitution 1337

of 3-(methylnitrosoamino)propionaldehyde in F344 rats 369

Carcinogens

target cells for cytotoxic effects in murine small bowel 361

Casein

dietary, aflatoxin B1, initiation of carcinogenesis 171

isolation/characterization for mouse O6-methylguanine-DNA methyltransferases 289

Cell death

interpretation of labeling indices 1007

Cell kinetic analysis

during 1-hydroxyanthraquionone-induced carcinogenesis 2217

Cell proliferation

ethinyl estradiol-induced in rat liver 2381

of rat tracheal epithelial cells, effect of sodium selenite 1725

Cell transforming potential

of low-density lipoproteins 1913

Cell tumour development

sequential changes in glycogen content/glucose transporter expression/enzymatic patterns 2329

Cellular catalase activity

difference between xeroderma pigmentosum/trichothiodystrophy 321

Cellular membranes-IV

interactions with spin-labelled phorbol esters 205

Cellular membranes-V

interactions with spin-labelled phorbol esters 211

Cellular proliferation

effect of fat in AIN-76A diet on cellular proliferation in mammary gland/intestinal crypts 1735

modulating effects of caloric restriction/ageing 2419

Cellular senescence

induced by X chromosomes 555

Cellular transformation

inhibition by triphenylmethane, a chemopreventive agent 1107

Cervical cancer

cell lines, status of p53 gene 1273

Chemical carcinogens

and overnutrition in diet-related cancer 2211 sequential combined tumourigenic effect 1981 Chemoprevention

by curcumin on benzo[a]pyrene/7,12-dimethylbenz[a]anthracene 2183 of mammary carcinogenesis by hydroxylated derivatives of d-limonene

of smoke related DNA adduct formation in rat lung/heart 2191 of smoke-related DNA adduct formation 2187

Chemopreventive agent

cellular transformation inhibition by triphenylmethane 1107

Chick embryo liver

in vivo formation of chromium (V) 2113

Chinese hamster ovary cells

mutational specificity of chromium (VI) compounds in hprt locus 2053 repair of mitrochondrial DNA after DNA damage 1967

Chloroform

inhibits development in rat liver 1325

Chlorophyllin

inhibition of quinioline, 2-amino-3-methylimidazo [4, 5-f] - DNA binding 1121

protection against covalent binding of

quinoline,2-amino-3-methylimidazo[4,5-f] to rat liver DNA 113

CHO cells

protection by methoxyamine modification of abasic sites 87

Cholangiocellular

lesions persistence in choline-deficient/DL-ethionine-supplemented diet

Cholecystokinin

effect on azaserine-induced pancreatic tumours 1525

Cholesterol

dietary, promoting effects on pancreatic carcinogenesis 2047

Cholestyramine

dietary, promoting effects on pancreatic carcinogenesis 2047

Choline

deficient diet, nucleotide pools in rats 2471

enhanced liver carcinogenesis 1929

enhancement of acetylaminofluorene promotion of liver carcinogenesis 385

Choline-deficient

glutathione S-transferase expression in oval/ductal cells 1879

DL-ethionine-supplemented diet, persistence of

cholangiocellular/hepatocellular lesions 271

L-amino acid defined diet dietary iron deficiency inhibits rat hepatocarcinogenesis 1227

Chondrocytes

SV40-transformed rabbit 767

Chromium

(III) compounds defining in vitro cross-linking conditions of proteins-DNA 307

(V) in vivo formation in red blood cells/chick embryo liver 2113 (VI) and (V), 8-hydroxydeoxyguanosine production in DNA 1667

(VI) compounds, mutational specificity in hprt locus of Chinese hamster ovary cells 2053

(VI) reduction-chromium(V), DT-diaphorase involved? 1159 reduction by ascorbate in rat lung 1319

compounds induced residual amino acid-DNA crosslinks analysis 1763

Chromosomal translocation

dependent neoplastic development:plasmacytomagenesis in mice 1681

Chromosome aberrations

following cytotoxic therapy in patients in remission from lymphoma

Cigarette smoke

promoting effects on respiratory tract carcinogenesis following diethylnitrosamine treatment 569

Cirrhotic liver

enhancing effect of 6-mercaptopurine on focal lesion development 1365

Cisplatin resistance

expression following exposure to fractionated X-irradiation 1209

Clofibric acid

hepatocellular turnover contrasted with peroxisome proliferation 1011

Coal tar pitch

carcinogenic effects in rat respiratory tract by intratracheal instillations 233

Coal tar therapy

doesn't influence benzo[a]pyrene metabolism/DNA adduct formation in psoriatic patients peripheral 1569

Coenzyme A

hypomethylation during hepatocarcinogenesis 497

Colloidal

gold ultraimmunocytochemistry of DNA/RNA adducts in rat hepatocytes 2335

Colon

tumors, K-ras oncogene mutation induced by N-methyl-N-nitrosourea 45

1,2-dimethylhydrazine-induced, effects of aspirin 541

1,2-dimethylhydrazine-induced, pectin/guar gum dietary supplementation

aberrant crypt foci associated with increased c-fos expression in preneoplastic lesions 573

ear tumours in 1,2-dimethylhydrazine treated rats 493

effect of piroxicam/D,L-α-difluoromethylornithine on biomarkers 995 effect of thymidine kinase activity in familial adenomatous polyposis 873 rat, protective role of 1,25-dihydroxyvitamin D<sub>3</sub> 2293 suppression by prostaglandin inhibitors 1019

Colonic aberrant crypts

azoxymethane-induced, evidence for ras gene mutation 2081

Colonic bile acids

diet-induced increase stimulates lytic activity of fecal water/proliferation of colonic cell 41

Colonic mucosa

rat, effect of dietary fiber cytochrome P450IA1 induction 2121

Colonic tumour

formation, effect of high-/low-risk diet 887

Conventional fluorescence methods

identification/detection of isomeric benzo[a]pyrene diolepoxide-DNA adducts 1817

Covalent binding

investigation of styrene-7,8-oxide to rat/mouse DNA 193 of N-hydroxy-2-acetylaminofluorene to rat liver aryl sulfotransferase IV

to RNA/protein: photoactivation of 2-nitrofluorene in rat 1759 Crocidolite asbestos

iron mobilization enhances reactivity with DNA 637

Cromium

binding sites-DNA/protein in intact cells 2341

Cross-linking agents

detection in gastrointestinal tract 683

Cu(II)

flavonoid activity for DNA cleavage 605

Curcumin

chemoprevention on benzo[a]pyrene/7,12-dimethylbenz[a]anthracene 2183

Cyclopenta[a]phenanthrene

derivatives, tumorigenicity in mouse skin 329

Cypla-1

gene expression regulation in mouse hepatocytes 2249

Cypla-2

gene expression regulation in mouse hepatocytes 2249

Cyproterone acetate

induces DNA damage in rat hepatocytes and stimulates DNA synthesis 373

Cytochrome P450

expression in yeast after chemical treatments 2175 metabolic activation of N-nitrosodialkylamines and tobacco-related nitrosamines 1789

Cytochrome P450 2E1

rat liver, N-nitrosodialkylamine activation to Salmonella typhimurium 979

Cytochrome P450 enzymes

acetoxime metabolism to propane 2-nitronate 1091

human liver, contributions to N-oxidation of 4,4'-methylenebis(2-chloroaniline) 217

Cytochrome P450 inducers

effect on I-compounds 1191

Cytochrome P450 monooxygenase

aflatoxin B<sub>1</sub> bioactivation in tissues 533

Cytochrome P4501A

expression in adult/fetal human liver 165 induction in tissue by benzo[a]pyrene 2395

Cytochrome P450A1

in hepatic lesions of teleost fish from polycyclic aromatic hydrocarboncontaminated site 505

Cytochrome P450IA1

effect of dietary fiber on induction in rat colonic mucosa 2121 stability of dioxin-receptor ligands influences expression in human keratinocytes 651

Cytogenetic damage

in smokers deficient in glutathione S-transferase  $\mu$  303

Cytokeratins 8 and 18

hyperphosphorylation by microcystin-LR in rat heptocytes 2443

Cytotoxic effects

target cells of carcinogens in murine small bowel 361

Cytotoxic therapy

chromosome aberrations in patients in remission from lymphoma 1095

d-limonene

chemoprevention of mammary carcinogenesis by hydroxylated derivatives

D,L-α-Difluoromethylornithine

effect on biomarkers of colon carcinogenesis 995

Dacarbazine

treated patients, N7-methylguanine in white blood cell DNA 1257

Debrisoquine hydroxylase polymorphism relationship to cancer susceptibility 1035

Delayed reproductive death

in X-irradiated cells 923

Demethylating agents

production in mice 1039

Dexamethasone

inhibition of mouse skin tumorigenesis through Ha-ras-independent mechanism 2075

Diacylglycerol

alterations in protein kinase C isozymes in activated Ha-ras 1113

Diallyl disulfide

effects on colon/renal carcinogenesis 1513

Diallyl sulfide effects on hepatocarcinogenesis 1513

inhibitory effects on tobacco-specific

butanone,4-(methylnitrosamino)-1-(3-pyridyl)-1 901

modulation of N-nitrosomethylbenzylamine bioactivation in vivo 2467

Dibenzo[a,e]fluoranthene

32P-postlabelling analysis of norharmam inhibition 723

Dieldrin

increases c-Ha-ras wild type frequency 477

Diet

effect from mixed-lacto-vegetarian, urinary/fecal mutagenic activity 153 effect of high-/low-risk-abberrant crypt/colonic tumor formation 887

Diet-related cancer

chemical carcinogens and overnutrition 2211 Dietary amine

nitrate exposure in Kashmir 1331

Dietary caffeine

foreign compound metabolism capacity measured from metabolites 1561 Dietary constituents

inhibition of repairable DNA-damage in E.coli K-12 cells 1643

Dietary effect

of aflatoxin B<sub>1</sub> in weanling rat liver 1853

Dietary fiber

effect on cytochrome P450IA1 induction in rat colonic mucosa 2121

Dietary hydrogen peroxide

enhances hepatocarcinogenesis in trout 1639

Dietary iron deficiency

inhibits rat hepatocarcinogenesis by choline-deficient L-amino acid defined diet 1227

Dietary methyl deprivation

onset of oncogene hypomethylation in rat liver 1869

Diethylnitrosamine

-induced hepatocarcinogenesis, modification by carbon tetrachloride

-induced liver lesions, enzyme/immunohistochemical phenotyping in mouse strains 691

dose dependence in phenobarbital promotion of rat hepatocarcinogenesis

treatment, promoting effects of cigarette smoke on respiratory tract carcinogenesis 569

Diethylstilbestrol

exposed rats, α glutathione S-transferase/aflatoxin B<sub>1</sub> alteration 2375

Dihydrodiol dehydrogenase

contribution to metabolism of pyrene,-

trans-7,8-dihydroxy-7,8-dihydrobenzo[a] in rat li 1575

Dimethylarsinic acid

induction, heterochromatin increase 391

Dimethylsulfate

exposure, induction of DNA repair synthesis 1285

in vitro activation to DNA-binding form by heterocyclic amines 1619 Dioxin-receptor ligands

stability influences cytochrome P450IA1 expression in human keratinocytes 651

Dioxin, 2, 3, 7, 8-tetrachlorodibenzo-p-

as co-mitogen in rat hepatocytes 453

DNA

-benzo[a]pyrene, increased binding through (+)-antibenzo[a]pyrene-7,8-diol-9,10-epoxide 297

-cromium binding sites in intact cells 2341

-protein crosslink, a simple assay for detection 1485

-proteins, defining in vitro cross-linking conditions by chromium(III) compounds 307

determination of malonaldehyde-modified by 32P-postlabelling 593 iron mobilization from crocidolite asbestos enhances reactivity 637 rat/mouse, investigation of covalent binding of styrene-7,8-oxide 193 reaction kinetics-histone crosslinking by vinyl acetate/acetaldehyde 2095 reactions with pyridine,2-amino-1-methyl-6-phenylimidazo[4, 5-b] and 2'-deoxyguanosine 629

DNA adduct

-2-aminofluorene, mouse urinary bladder-age/sex/acetylator phenotype 159

-4-aminobiphenyl, application to immunoaffinity chromatography 917

-4,4'-methylenebis(2-chloroaniline), characterization 1587

-aflatoxin B<sub>1</sub> formation following aerosol inhalation 1031

-aflatoxin B<sub>1</sub> in parenchymal/non-parenchymal cells, in vivo formation 831

-benzo[a]pyrene, DNA polymerase action 2347

-isomeric benzo[a]pyrene diolepoxide identification/detection by conventional fluorescence method 1817

-polycyclic aromatic hydrocarbon, related to smoking in mononuclear cells 2041

-polycyclic aromatic hydrocarbon in white blood cells from lung cancer patients 987

Sudan I, 32P-postlabelling analysis 1221

32P-postlabelling analysis of norharmam inhibition 723

<sup>32</sup>P-postlabelling detection induced by fecapentaene-12 aerobic decomposition 395

<sup>32</sup>P-postlabelling induced by Fenton-type oxygen radical-generating

system 1127

32P-postlabelling/formation by N,N-dimethyl-4-aminoazobenzene 1657 7,12-dimethylbenz[a]anthracene-induced, inhibition by garlic 1847 accumulation of N-nitroso-N-methylbenzylamine-induced 2101 and procarbazine 2153

and sister chromatid exchange induction following benzo[b]fluoranthene administration in rat 1731

dose-dependent formation in rat liver 1427 enrichment procedures for <sup>32</sup>P-postlabelling 2459

mammary glands, 32P-postlabelling analysis of parous mice/nulliparous mice treated with benzo[a]pyrene 2009

metabolic activation of quinoline, 2-amino-3-methylimidazo [4,5-f]/quinoli ne,2-amino-3,4-dimethylimidazo[4,5-f] 907

molecular dosimetry in bisphenol A diglycidylether treated mice 969 molecular dosimetry in glycidaldehyde treated DNA adducts 119 relationship of human exposure to indole 3-amino-1,4-dimethyl-5Hpyrido-4,3-b 1025

storage phosphor imaging technique measured by 32P-postlabelling assay 1475

DNA adduct formation

by o-phenylphenol metabolite 1469

chemoprevention of smoke related in rat lung/heart 2191

chemoprevention of smoke-related 2187

in HL-60 cells, peroxidative activation of o-phenylhydroquinone 1937 in psoriatic patients peripheral blood lymphocytes, influence of coal tar therapy 1569

DNA adduct levels

and acetylator phenotype following 4-aminobiphenyl administration 1887 DNA alkyltransferase

Ob-alkylguanine activity in epidermal normal/tumour cells 1265 -O6-alkylguanine depletion by O6-benzylguanine in breast epithelial cells 1743

**DNA** binding

inhibition - quinioline, 2-amino-3-methylimidazo [4, 5-f] by chlorophyllin 1121

of N-hydroxyarylamines in liver cytosols, sulfotransferase-mediated 1307

DNA cleavage

flavonoid activity in presence of Cu(II) 605

**DNA** content

alterations in endometrial stromal cells with temperature sensitive SV40 transvection 63

DNA crosslinks

-residual amino acid, analysis induced by nickel/chromium compounds 1763

**DNA** damage

and sister chromatid exchange frequency in benzene/toluene-exposed markers 57

cyproterone acetate induced in rat hepatocytes and stimulates DNA synthesis 373

oxidative estimated by 8-hydroxydeoxyguanosine human excretion 2241 repair of DNA damage in Chinese hamster ovary cells 1967 sublethal tumor cell induction, role of macrophage-derived tumor necrosis factor alpha 77

DNA excision repair

UV-induced function of DNA topoisomerases 2321

DNA glycosylase

N-methylpurine, human DNA repair protein, overexpression 1989 -uracil expression in smokers/non-smokers 1769

DNA interstrand cross-linking

sequence-selective depurination associated with alkylated DNA 425

**DNA** lesions

repair kinetics in white blood cells 459

DNA methylation

correlation between hepatocarcinogenesis after

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone treatment 2137

DNA methyltransferase

-06-methylguanine activity in human tumours 1503

-06-methylguanine, isolation/characterization of cDNA/genomic sequences 289

-06-methylguanine expression in smokers/non-smokers 1769

DNA phage M13mp2

spectrum of mutations when exposed to sunlight 1615

DNA repair

in malignant neoplastic transformation of mammary epithelial cells 1137 of photoproducts detected by photochemical method 1975 sequence specific by E.coli Fpg protein 1455

DNA repair protein

overexpression of N-methylpurine-DNA glycosylase 1989

DNA repair replication

effect of topoisomerase poisoning by antitumour drugs 1371

DNA repair synthesis

induction following N-acetoxy-N-acetylaminofluorene/dimethylsulfate exposure 1285

**DNA** replication

inhibition by aminobiphenyl adducts 751

DNA sequence analysis

of 1-nitrosopyrene-induced mutations in hprt gene 819

DNA strand break formation

sequence-selective depurination associated with alkylated DNA 425

DNA strand breaks

aldehyde-/4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone-induced, glutathione modulation 1447

DNA synthesis

-inhibition test for mammalian carcinogen detection 2389 cyproterone acetate induced 373

inhibition by phenobarbital in hepatocyte primary cultures 2287 methapyrilene effect following continuous dietary exposure 2453 O6-methylguanine - DNA methyltransferase depletion by O6

methylguanine-DNA synthesis, chick hepatocytes 33 status in mancozeb-exposed mouse skin 131

DNA topoisomerases

function in UV-induced DNA excision repair 2321 **DNA-binding form** 

in vitro activation of dioxin receptor by heterocyclic amines 1619

**DNA-damage** repairable, inhibition in E.coli K-12 cells by dietary constituents 1643

Dose dependence

in phenobarbital promotion of rat hepatocarcinogenesis initiated by diethylnitrosamine 501

Dose-response study

on covalent binding-forestomach protein following oral administration of [14C]3-BHA 1663

Doxorubicin resistance

relationship with smoking habits 1946

Drug resistance

in rat epithelial cells spontaneously and chemically transformed 1675

DT-diaphorase

involved in chromium(VI) reduction-chromium(V)? 1159

Duodenal reflux

through pylorus induces gastric adenocarcinoma 2313

E.coli K-12 cells

inhibition of repairable DNA-damage by dietary constituents 1643

E.coli plasmid

mutagenesis by (+)-anti-B[a]P-N2-Gua 1415

Ear tumours

in 1,2-dimethylhydrazine treated rats used for colon carcinogenesis 493 Electron spin resonance

spectroscopy of oxygen radicals generated by fecapentaene-12 1249

Electrophilicity

measurement by ke system 547

Embryo cells

gap junctional communication regulation by retinoic acid/acetate, 12-Otetradecanoyl-phorbol-13 199

**Embryonal liver** 

foci of altered hepatocytes 943

Endometrial stromal cells

alterations of DNA content with temperature sensitive SV40 transvection 63

Endosulfan

 $\alpha$  and  $\beta$  promote altered hepatic foci growth in rats 2299 inhibitory effects on gap junctional intercellular communication in rat liver cells/primary hepatocy 657

Enhanced liver carcinogenesis

by choline 1929

**Enzymatic patterns** 

sequential changes during cell tumour development 2329

Enzyme involvement

kinetics in 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone metabolism lung/nasal mucosa 1409

**Epidermal** 

cell toxicity, neutrophil activation by palytoxin and 12-Otetradecanoylphorbol-13-acetate 1671

-tumour cells, phenotypic expression by 12-0-

tetradecanoylphorbol-13-acetate 1301

normal/tumour cells, O6-alkylguanine-DNA alkyltransferase activity 1265

ornithine decarboxylase activity induction biogenic silica fibers 617

Epidermal cells

aflotoxin toxicity by 2,3,7,8-tetrachlorodibenzo-p-dioxin 2029 transplacentally initiated sensitivities of newborn mouse to tumour promoters 251

Epidermal growth factor receptor number

UVC modulation in HeLa S3 cells 183

**Epidermis** 

initiated, tumor promoters in keratinocyte co-cultures 2145

**Epigenetic activation** 

Gi-2 protein mediates tumour promotion 2403

Epithelial cells

drug resistance in rat spontaneously and chemically transformed 1675 kidney, development of quantitative in vitro transformation assay 25 mammary, role of DNA repair in malignant neoplastic transformation 1137

Esophageal tumour incidence

vitamin E protection 1811

Estrogen receptor levels

in MNU-induced thyroid tumours in LE rats 1315

Estrogen stimulus

removal, rat pituitary changes observed with magnetic resonance imaging

Ethanol

effect on O6-methyldeoxyguanosine formation 1171 effect on pancreatic carcinogenesis 1379

enhancement of tumorigenesis by N-nitrosodimethylamine 2107

Etheno adducts

persistence in liver 727

Ethinyl

estradiol-induced cell proliferation in rat liver 2381

Ethinylestradiol

as co-mitogen in rat hepatocytes 453

Ethyl phenylpropriolate

ornithine decarboxylase induction in specific subpopulations of epidermal cells 51

Exfoliated

cells, 32P-postlabelling in aristolochic acid I treated rat urine 1835

Extrahepatic tissues

genotoxicity of N-nitrosamine in rat 2435

transplacental carcinogenic effects of nickel(II) acetate 1351

Familial adenomatous polyposis

bile, effects on rat intestine 731

effect of colon carcinogenesis-thymidine kinase activity 873

effect in AIN-76A diet on cellular proliferation in mammary gland/intestinal crypts 1735

Fecal water

diet-induced increase of colonic bile acids stimulates colonic cells lytic activity and proliferation 41

Fecapentaene-12

detection by 32P-postlabelling of DNA adducts 395 electron spin resonance spectroscopy of oxygen radicals 1249

Flavonoid activity for DNA cleavage in presence of Cu(II) 605

Flow cytometric analysis

of thymic lymphosarcoma induced by N-methyl-N-nitrosourea in C57B1/6J mice 509

Fluorine substitution

carcinogenicity modulation in

1,2,3,4-tetrahydro-7,12-dimethylbenz[a]anthracene 1337

Focal lesion development

enhancing effect of 6-mercaptopurine in cirrhotic liver 1365

Foci

of altered hepatocytes induced in embryonal liver 943

Folic acid

deficient diet, nucleotide pools in rats 2471

Food restriction

increases detoxification of polycyclic aromatic hydrocarbons 519 inhibitory effect of tumour promotion by adrenalectomy 1925

Foreign compound metabolism

capacity measured from dietary caffeine metabolites 1561

Forestomach carcinogenesis

influence of caffeic acid and o-dihydroxybenzene 1825

Forestomach protein

dose-response study on covalent binding, following oral administration of [14C]3-BHA 1663

Formamide, N-[4-(5-nitro-2-furyl)-2-thiazolyl] transformed bladder cells, ras activation 1651

Fpg protein

sequence specific DNA repair 1455

Fractionated X-irradiation

expression of cisplatin resistance following exposure 1209 Fumonisin B mycotoxins

cancer-initiating potential 433

D-galactosamine

rat hepatic nodules nerogenic effect resistance 2463

Gamma-glutamyltranspeptidase positive

aflatoxin B1-induced hepatic foci by low protein diet 1607

Gap junctional communication

cAMP effect in hamster embryo cells 1803

regulation in embryo cells by retinoic acid/acetate, 12-O-tetradecanoylphorbol-13 199

Gap junctional intercellular communication

endosulfan inhibitory effects in rat liver cells/primary hepatocytes 657 inhibition by asphalt fume condensates 1047

Garlic

inhibition of 7,12-dimethylbenz[a]anthracene-induced mammary tumors and DNA adducts 1847

Gastric adenocarcinoma

duodenal reflux through pylorus 2313

Gastric carcinogenesis

calcium chloride inhibitory effect after treatment with N-methyl-N'-nitro-N-nitrosoguanidine 1155

Gastrointestinal cell proliferation

effects of butylated hydoxyanisole on arachidonic acid/linoleic acid metabolism 585

Gastrointestinal tract

detection of cross-linking agents/reactive oxygen species 683 Gene expression

regulation of Cyp1a-1/Cyp1a-2 in mouse hepatocytes 2249

Genetic alterations

in H-ras 61st codon isolated from hepatic lesions 935

Genetic analysis

of skin tumor promotion susceptibility 525

Genetic instability

of cancer cells, stress response a factor? 2407

of epidermal ornithine decarboxylase induction 177

Genomic sequences

isolation/characterization for mouse O6-methylguanine-DNA methyltransferases 289

Genotoxic potential

of tamoxifen/analogue 2197

Genotoxicity

of N-nitrosamine in rat extrahepatic tissues 2435 of UVA irradiation in Drosophila melanogaster 1433

Gi-2 protein

epigenetic activation mediates tumour promotion 2403

Glandular stomach

okadaic acid tumour promotion in rat 1841

Glucocorticoid receptor

and intracellular glutathione (phorone) 1083

Glucose transporter expression

sequential changes during cell tumour development 2329

1-C-Glucuronidation

of N-nitrosomethyl-n-pentylamine/N-nitrosodiethylamine in vivo and pretreated hepatocytes 867

Glutathione

modulation of aldehyde-/4-(methylnitrosamino)-1-(3-pyridyl)-1-butanoneinduced DNA strand breaks 1447

Glutathione conjugation

of benzo[c]phenanthrene diolepoxides by human glutathione transferases

peroxidase-mediated, of benzo[a]pyrene-7,8-dihydrodiol by benzo[a]pyrene phenols in vitro 515

endogenous in heme oxygenase gene expression modulation 227 endogenous modulate mutation frequency in human cells 1557

Glutathione S-transferase

expression oval/ductal cells in choline-deficient 1879 glutathione peroxidase modulation by butylated hydroxyanisole in murine extrahepatic organs 2255

placental form-positive foci by nivalenol 787

Glutathione S-transferase µ

deficient smokers, cytogenetic damage 303

Glutathione transferase

human, glutathione conjugation of benzo[c]phenanthrene diolepoxides

Glyceraldehyde-3-phosphate dehydrogenase proliferative dependent regulation 2127

Glycidaldehyde

treated C3H mice, molecular dosimetry of DNA adducts 119

Glycogen content

sequential changes during cell tumour development 2329

Glycoproteins

bearing blood group-A from pancreatic ductal adenocarcinomas 1829

lung/forestomach tumorigenesis protection 1491

polyphenol fraction, inhibitory effect of topical application-tumor initiation/promotion 947

GTPase activating proteins

mutations, absence in mouse liver tumours 1903

Guanine adducts

mutation spectra of 4-nitroquinoline 1-oxide in E.coli 349

Guar

gum, dietary supplementation 1,2-dimethylhydrazine-induced colon carcinogenesis 815

H-ras 61st codon

genetic alterations isolated from hepatic lesions 935

H-ras activation

in liver tumours of different mice 2427

H-ras oncogene

temporal changes following exposure to N-nitrosodiethylamine 1277 H<sub>2</sub>O<sub>2</sub>

formation of 8-hydroxydeoxyguanosine within mouse DNA 2003

H<sub>2</sub>O<sub>2</sub> formation

caffeic acid causes metal-dependent damage-cellular/isolated DNA 1497 Ha-ras

activated, alterations in protein kinase C isozymes in diacylglycerol 1113

Ha-ras codon 61 mutations by hexachlorobenzene/Aroclor 1254 in liver tumours 1917

Ha-ras proto-oncogene methylation by N-methyl-N-nitrosourea - mammary tumor resistance 857

Ha-ras-independent mechanism

inhibition of mouse skin tumorigenesis by dexamethasone 2075

Hamster DHFR gene DNA repair of photoproducts detected by photochemical method 1975

HeLa S<sub>3</sub> cells

UVC modulation of epidermal growth factor receptor number 183

Heme oxygenase gene expression

modulation, endogenous glutathione levels 227

Hepatic DNA

of N-nitosopyrrolidine treated rats, 7-(4-oxobutyl)guanine formation

Hepatic foci

inhibition of aflatoxin B1-induced gamma-glutamyltranspeptidase positive, by low protein diet 1607

Hepatic lesions

genetic alterations in H-ras 61st codon 935

of teleost fish from polycyclic aromatic hydrocarbon-contaminated site, cytochrome P450A1 505

Hepatic microsomes

dog, N-hydroxy-4-aminobiphenyl transacetylation/binding to nucleic acids 1705

Hepatic nodules

rat, resistance to D-galactosamine nerogenic effect 2463

Hepatic tumorigenesis

aflatoxin-induced, inhibition by enzyme inducer 1,2-dithiole-3-thione

Hepatocarcinogenesis

adenylate cyclase activity in liver membrane 241

and transforming growth factor-alpha 1481

chemical promotion, mitogen-induced liver hyperplasia 379

correlation between hepatocarcinogenesis after

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone treatment 2137

diethylnitrosamine-induced, modification by carbon tetrachloride cirrhosis

effects of diallyl sulfide 1513

hypomethylation of  $\beta$ -hydroxy- $\beta$ -methyl-glutaryl coenzyme A 497 in trout enhanced by dietary hydrogen peroxide 1639

multistage in phenotypic diversity 739

Hepatocarcinogenic

effect of benzene, 1,4-bis[2-(3, 5-dichloropyridyloxy)] in Nnitrosodiethylamine initiated rats 1893

Hepatocellular

lesions persistence in choline-deficient/DL-ethionine-supplemented diet

Hepatocellular adenomas

progressive atypia in spontaneous and N-nitrosodiethylamine-induced

Hepatocellular carcinoma

reduced proliferative activity of polyploid cells 1795

suppression of spontaneous hepatocellular carcinoma development

Hepatocellular foci

initiation by bleomycin 703

Hepatocellular proliferation

mitogenic stimulation following 1,4-dichlorobenzene administration

Hepatocellular turnover

contrasted with peroxisome proliferation for Wy-14,643/clofibric acid

Hepatocyte growth factor

plasma levels in tumor promoter-treated rats 139

Hepatocyte primary cultures

DNA synthesis inhibition by phenobarbital 2287

Hepatocytes

altered, foci induced in embryonal liver 943

chick, O6-methylguanine-DNA methyltransferase depletion by O6 methylguanine-DNA synthesis, chick hepatocytes 33

polyploid/diploid, aryl hydrocarbon/polycyclic aromatic hydrocarbon levels in 2-acetylaminofluorene-treated rats 807

pretreated, 1-C-glucuronidation 867

Hepatomas

variant protein patterns by two-dimensional gel electrophoresis 1177

Heterochromatin

increase after dimethylarsinic acid induction 391

Heterocyclic amines

in vitro activation of dioxin receptor to DNA-binding form 1619

Hexachlorobenzene

Ha-ras codon 61 mutations in liver tumours 1917

Hexavalent chromates

transformation of osteoblast-like human osteosarcoma cells 2021 Histone crosslinking

-DNA reaction kinetics by vinyl acetate/acetaldehyde 2095

HL-60 cells peroxidative activation of o-phenylhydroquinone leads to DNA adduct

formation 1937

hort mutant clone SP5, reversion by intrachromosomal recombination 609

DNA sequence analysis of 1-nitrosopyrene-induced mutations 819

hprt locus

of Chinese hamster ovary cells, mutational specificity of chromium (VI) compounds 2053

S-2-(3-aminopropylamino)ethylphosphorothioic acid reduces neutroninduced mutations 811

hprt mutation frequency

in smokers/non-smokers 1625

HPV-16

sequential combined tumourigenic effect 1981

Human

morphological transformation BALB/c 3T3 cells, α-thrombin 1

Human biomonitoring

and 32P-postlabelling assay 1053

Human breast milk

aflotoxin M<sub>1</sub> 891 Human epidermal keratinocytes

inhibition of gap junctional intercellular communication by asphalt fume condensates 1047

Human fetal strains

cytotoxic/mutagenic effects of methylnitrosourea 1185

Human keratinocytes

stability of dioxin-receptor ligands influences cytochrome P450IA1 expression 651

Human kidney tissues

in situ hybridization reveals cell-specific O6-methylguanine-DNA methyltransferase 463

Human liver

contributions of cytochrome P450 enzymes to N-oxidation of 4,4'-methylene-bis(2-chloroaniline) 217

Human lung microsomes

stereoselective metabolism of (-)-benzo[a]pyrene-7,8-diol:effect of smoking 929

Human papilloma virus

status of p53 gene 1273

**Human tumours** 

O6-methylguanine - DNA methyltransferase activity 1503

Human urine

pyridine,2-amino-1-methyl-6-phenylimidazo(4,5-b) mutagenicity inhibition 2317

Hydrogen peroxide

nickel(II) and L-histidine enhancement of 2'-deoxyguanosine oxidation

resistance and peroxisome proliferation in rat hepatocytes 1751

Hydrolyzable tannins

antitumor-promoting activities in mouse skin 715

Hydroxamic acids

sulfation in liver cytosol from aryl sulfotransferase IV 1699

1-Hydroxyanthraquionone

induced carcinogenesis, cell kinetic analysis 2217

8-Hydroxydeoxyguanosine

human excretion, oxidative DNA damage 2241

Hydroxyl radical formation

fiber-induced, correlation with mesothelioma induction 2035

Hydroxylamines

sulfation in liver cytosol from aryl sulfotransferase IV 1699

Hyperphosphorylation

of cytokeratins 8 and 18 by microcystin-LR in rat heptocytes 2443

Hyperplastic nodules

association between growth stimulation/expression of P450 enzymes 675

Hypomethylation

of  $\beta$ -hydroxy- $\beta$ -methyl-glutaryl coenzyme A during hepatocarcinogenesis

I-compounds

effect of cytochrome P450 inducers 1191 effect of phenobarbital in liver DNA 125

Imidazole,2-amino-6-methydipyrido $[1,2-\alpha:3',2'-d]$ 

entrapment by magnetic microcapsules 2353

Immunoaffinity purification

combined with 32P-postlabelling for O6-methylguanine detection in DNA

In situ hybridization

reveals cell-specific expression of O6-methylguanine-DNA methyltransferase 463

In vitro cross-linking

defining conditions of proteins-DNA by chromium(III) compounds 307

In vivo formation

of chromium (V) in red blood cells/chick embryo liver 2113

Indole 3-amino-1,4-dimethyl-5H-pyrido-4,3-b

relationship of human exposure to DNA adducts 1025

Inositol

phosphates/phosphoinositides in rat liver nodules 1461

Intercellular communication

inhibition by 12-O-tetradecanoylphorbol-13-acetate and airborne particulate matter 719

Intestinal crypts

effect of fat in AIN-76A diet on cellular proliferation 1735

Intestine

differential cancer incidence 2305

Intracellular glutathione

(phorone) and glucocorticoid receptor 1083

Intrachromosomal recombination

reversion of hprt mutant clone SP5 609

Intratracheal instillation

of benzo[a]pyrene, quinol diglucuronides in rat bile 403

Intratracheal instillations

carcinogenic effects of coal tar pitch in rat respiratory tract 233 Intravesicular administration

systemic/local carcinogenesis by N-nitroso compounds 1101

Iron 8-hydroxydeoxyguanosine induction in Ah-responsive mouse liver 247

Iron mobilization

from crocidolite asbestos enhances reactivity with DNA 637

oncogene mutation in colon tumors induced by oncogene 45

K-ras protooncogene

mutagenesis in mouse lung tumors by N-ethyl-N-nitrosourea/Nnitrosodiethylamine 1583

Ke measurement of electrophilicity 547

complementary value in carcinogen screening 2059

Ke test

response to NCI/NTP-screened chemicals 1437

Keratinocyte

co-cultures, tumor promoters in initiated epidermis 2145

Ki-ras-gene

comparison of mutation among multiple urethan-induced lung tumors 851

Kidney epithelial cells, development of quantitative in vitro transformation assay 25

Kidney tumours

estrogen-induced, elevation of protooncogene mRNAs 601

Kinetics

enzyme involvement in 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone metabolism lung/nasal mucosa 1409

Labelling indices

interpretation in cell death 1007

Licorice

lung/forestomach tumorigenesis protection 1491

Linoleic acid metabolism

effects of butylated hydoxyanisole in relation to gastrointestinal cell proliferation 585

Lipoproteins

low-density, cell transforming potential 1913

Lipoxygenases

aflatoxin B<sub>1</sub> bioactivation in tissues 533

Liver

DNA adducts in methyl-deficient rats administered aflatoxin B<sub>1</sub> 1241 human adult/fetal, cytochrome P4501A expression 165 persistence of etheno adducts 727

Liver carcinogenesis

choline enhancement of acetylaminofluorene promotion 385

Liver cell lines

variant protein patterns by two-dimensional gel electrophoresis 1177

Liver cytosol

hydroxylamines/hydroxamic acids sulfation from aryl sulfotransferase IV 1699

sulfotransferase-mediated DNA binding of N-hydroxyarylamines 1307

Liver DNA

effect of phenobarbital on I-compounds 125

Liver hyperplasia

mitogen-induced during chemical hepatocarcinogenesis promotion 379

Liver membrane

adenylate cyclase activity during hepatocarcinogenesis 241

Liver microsomal samples

metabolism of trans-7,8-dihydrobenzo(a)pyrene-7,8-diol enantiomers 1199

Liver tumours

H-ras activation of different mice 2427

Ha-ras codon 61 mutations by hexachlorobenzene/Aroclor 1254 1917

Low protein diet

inhibition of aflatoxin B<sub>1</sub>-induced gamma-glutamyltranspeptidase positive hepatic foci 1607

Lung cancer

patients, DNA adducts-polycyclic aromatic hydrocarbon from white blood cells 987

Lung DNA

of butanone,4-(methylnitrosamine)-1-(3-pyridyl)-1-treated F344 rats/A/J mice, 8-oxodeoxyguanosine levels 1269

Lung tissue

myeloperoxidase-enhanced oxidation of pyrene 1075

Lung tumours

comparison of ki-ras-gene mutation among multiple urethan-induced 851

in patients in remission, chromosome aberrations following cytotoxic therapy 1095

Lytic activity

of fecal water colonic cell proliferation, diet-induced increase of colonic bile acids 41

Magnetic microcapsules

entrapment of quionoline, 2-amino-3-methylimidazo [4,5-f]/pyridine, 2-amino-1-methyl-6-phenylimidazo 2353

Magnetic resonance imaging

rat pituitary changes following estrogen stimulus removal 277

Malignant neoplastic transformation

of mammary epithelial cells, role of DNA repair 1137

Mammalian carcinogen

detection with DNA synthesis-inhibition test 2389

Mammalian cell extracts

effect of topoisomerase poisoning by antitumour drugs on DNA repair replication 1371

Mammary adenocarcinoma cells

in rats, pregnancy-induced antitumour cytotoxicity of T cell-rich fraction 2449

Mammary carcinogenesis

chemoprevention by hydroxylated derivatives of d-limonene 1261 effect of age at induction of 1-methyl-1-nitrosourea 1535

Mammary carcinoma

suppressor genes/susceptibility genes in Wistar-Kyoto rat 1933

Mammary gland

effect of fat in AIN-76A diet on cellular proliferation 1735

Mammary tumours

7,12-dimethylbenz[a]anthracene-induced, inhibition by garlic 1847

Mancozeb-exposed mouse skin

status of ornithine decarboxylase activity and DNA synthesis 131

Manganese superoxide dismutase

expression in 7,12-dimethylbenz[a]anthracene-induced ovarian cancer

Marine sponges

expression gene of P-glycoprotein 69

Mass spectrometry

interaction of styrene oxide with angiotensin 1397

Melamine

administered to urinary bladder, relationship between calculus formation/carcinogenesis 1043

Mesothelioma

induction, correlation with fiber-induced hydroxyl radical formation 2035 Mesothelioma cells

human and asbestos-exposed are resistant to amosite toxicity 1359

Metabolic activation

of quinolone, 2-amino-3-methylimidazo[4,5-f], role of human acetylation polymorphism 1713

Metabolites

dietary caffeine, foreign compound metabolism capacity 1561

Metal-dependent damage

-cellular/isolated DNA, through H2O2 formation 1497

Methapyrilene

carcinogenic effect with nitrosodiethylamine in low doses 1293 effect on DNA synthesis following continuous dietary exposure 2453

Methionine

deficient diet, nucleotide pools in rats 2471

Methoxyamine

modification of abasic sites protects CHO cells 87

Methyl methanesulfonate

-treated cells, nucleosome rearrangement and repair patch ligation 135

Methyl radical

formation from procarbazine 799

Methyl-deficient rats

administered aflatoxin B<sub>1</sub>, liver DNA adducts 1241

7-Methylguanine

effect of smoking on formation 1951

Methylnitrosourea

cytotoxic/mutagenic effects in human fetal strains 1185

Mezerein

ornithine decarboxylase induction in specific subpopulations of epidermal cells 51

Microcystin-LR

hyperphosphorylation of cytokeratins 8 and 18 in rat heptocytes 2443 Micronucleus induction

tumorigenicity in mouse skin 329

Mink

tobacco carcinogenesis XLVIII:carcinogenicity of N'-nitrosonornicotine 1957

Mitogenic stimulation of hepatocellular proliferation following 1,4-dichlorobenzene administration 409

Mitrochondrial DNA

repair after DNA damage in Chinese hamster ovary cells 1967 Molecular dosimetry

of aflatoxin-N7-guanine and aflatoxin-albumin adduct predicts

chemoprotection by 1,2-dithiole-3-thione 101 of DNA adducts in bisphenol A diglycidylether treated mice 969 of DNA adducts in glycidaldehyde treated C3H mice 119

Molecular dynamics

of alkylated DNA 2067

Monoclonal antibodies

recognizing 4-aminobiphenyl-DNA adducts and immunoaffinity chromatography application 917

Mononuclear cells

smoking related polycyclic aromatic hydrocarbon-DNA adducts 2041

Morphological transformation

cAMP effect in hamster embryo cells 1803

Mouse epidermal cytoskeletal protein

altered expression is proliferation marker induced by tumor promoter 963

Mouse liver tumours

absence of GTPase activating proteins mutations 1903 spontaneously-/chemically-induced, point mutation analysis of ras genes 1383 Mouse skin

birth and death/differentiation rates 973

tumour promoting phorbol esters activate phospholipase D 1907

mRNA concentration

stimulation of transforming growth factor  $\beta_1$  in benzo[a]pyrene treated mouse skin 83

Mucosa

lung/nasal, kinetics/enzyme involvement in

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone metabolism 1409

Murine epidermal JB6 cells

12-O-tetradecanoylphorbol-13-acetate induced transformation exhibit arachidonic acid metabolism 189 carba-prostacyclin inhibition of 12-O-tetradecanoylphorbol-13-acetateinduced transformation 1859

Murine extrahepatic organs

glutathione S-transferase/glutathione peroxidase modulation by butylated hydroxyanisole 2255

Murine keratinocytes

v-ras oncogene transformed, phospholipid metabolism analysis 2367 Murine small bowel

target cells for cytotoxic effects of carcinogens 361

Mutagen-induced

amplification of neo gene in rat fibroblasts 439

Mutagenesis

by (+)-anti-B[a]P-N2-Gua in E.coli plasmid 1415 of k-ras protooncogene in mouse lung tumors by N-ethyl-Nnitrosourea/N-nitrosodiethylamine 1583

Mutagenic activity

urinary/fecal, effect from mixed-lacto-vegetarian diet 153

Mutagenic product

N-hydroxy-2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline 2221

Mutagenicity

amine, N-nitrosobis(2-hydroxypropyl)/amine, N-nitrosobis(2-oxopropyl) in V79 cells 223

pyridine,2-amino-1-methyl-6-phenylimidazo(4,5-b) inhibition in human urine 2317

Mutagenicity tests

short-term, advancement strategies 1403

Mutation frequency

glutathione levels modulate in human cells 1557

Mutation spectra

of guanine adducts of 4-nitroquinoline 1-oxide in E.coli 349

Mutational specificity

of chromium (VI) hprt locus of Chinese hamster ovary cells 2053

Myeloperoxidase

-enhanced oxidation of pyrene 1075

Myristicin

benzo[a]pyrene-induced tumorigenesis inhibition 1921

N-Acetoxy-N-acetylaminofluorene

exposure, induction of DNA repair synthesis 1285

N-Butyl-N-(4-hydroxybutyl)nitrosamine

induced bladder carcinomas, ras oncogene activation 2281

N-Ethyl-N-nitrosourea

mutagenesis of k-ras protooncogene in mouse lung tumors 1583

N-Glucuronidation role in benzine-induced bladder cancer 1235

N-Hydroxy

-2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline is mutagenic product 2221

N-Hydroxy arylamines

O-acetylation to form carcinogen-DNA adducts 663

N-Hydroxy-2-acetylaminofluorene

covalent binding to rat liver aryl sulfotransferase IV 107

N-Hydroxy-4-aminobiphenyl

acetyl-transferase-mediated metabolic activation by uroepithelial cells 955 transacetylation/binding to nucleic acids by dog hepatic microsomes 1705

N-Hydroxyarylamines

sulfotransferase-mediated DNA binding in liver cytosols 1307

N-Methyl-N-nitrosourea

flow cytometric analysis of thymic lymphosarcoma in C57B1/6J mice 509

formation/methylation of Ha-ras proto-oncogene-mammary tumor

induced bladder carcinomas, ras oncogene activation 2281

induction of skin/thyroid tumours 669

K-ras oncogene mutation in colon tumors 45

N-Methyl-N'-aryl-N-nitrosoureas

carbamoylation reactions to 5'-amino-5'-deoxythymidine 699

N-Methyl-N'-nitro-N-nitrosoguanidine

calcium chloride inhibitory effect on gastric carcinogenesis 1155

N-Methylpurine

-DNA glycosylase, human DNA repair protein, overexpression 1989 N-Nitosopyrrolidine

treated rats, 7-(4-oxobutyl)guanine formation in hepatic DNA 1909 N-Nitrosamine

genotoxicity in rat extrahepatic tissues 2435

tobacco-specific, analysis in indoor air 2415

tobacco-specific, bioavailability to snuff dipper 863

N-Nitroso compounds caffeine-derived 2179

intravesicular administration 1101

N-Nitroso-N-methylbenzylamine

induced accumulation of DNA adducts 2101

N-Nitrosobis(2-oxopropyl)amine

inhibitory effects soybean trypsin inhibitor on pancreatic carcinogenesis

N-Nitrosodialkylamine

activation by rat liver cytochrome P450 2E1 to Salmonella typhimurium

metabolic activation by cytochrome P450 1789

N-Nitrosodiethylamine

-induced hepatocellular adenomas, progressive atypia 1541

1-C-glucuronidation in vivo 867

initiated rats, tumour-promoting/hepatocarcinogenic effect of benzene, 1,4-bis[2-(3, 5-dichloropyridyloxy)] 1893

mutagenesis of k-ras protooncogene in mouse lung tumors 1583

temporal changes in H-ras oncogene 1277

N-Nitrosodimethylamine

ethanol enhancement of tumorigenesis 2107

N-Nitrosomethyl-n-pentylamine 1-C-glucuronidation in vivo 867

N-Nitrosomethylbenzylamine

bioactivation, modulation by diallyl sulfide in vivo 2467

N-Oxidation

contributions of human liver cytochrome P450 enzymes of 4,4'-methylene-bis(2-chloroaniline) 217

N7-Methylguanine

in white blood cell DNA of dacarbazine treated patients 1257

N'-Nitrosonornicotine

tobacco carcinogenesis XLVIII:carcinogenicity in mink 1957

N, N-Dimethyl-4-aminoazobenzene

32P-postlabelling/formation of DNA adducts/tRNA adducts 1657

N,O-Acyltransferases

microsomal, purification/characterization 2017 1-Naphthylamine

metabolism in isolated rat hepatocytes 2227

2-Naphthylamine

metabolism in isolated rat hepatocytes 2227

NCI/NTP-screened chemicals K<sub>e</sub> test response 1437

neo gene

mutagen-induced amplification in rat fibroblasts 439

Neoplastic development

chromosomal translocation dependent; plasmacytomagenesis in mice

Neoplastic transformation

abrogation of C3H10T1/2 cells due to 7,12-dimethylbenz[a]anthracene 643

Nerogenic effect

rat hepatic nodules resistance to D-galactosamine 2463

Neuroadrenergic cells

cytotoxic/genotoxic effects of styrene-7,8-oxide 417

Neutral lipids

and phospholipids, composition and turnover in breast cancer tissues 579

Neutrophil activation

of epidermal cell toxicity by palytoxin and 12-O-

tetradecanoylphorbol-13-acetate 1671

Newborn mice

comparative tumourigenicity of nitrochrysene isomers 2271

Nickel

/chromium compounds induced residual amino acid-DNA crosslinks analysis 1763

nickel(II)

and L-histidine enhancement of 2'-deoxyguanosine oxidation with hydrogen peroxide 283

Nickel(II) acetate

transplacental carcinogenic effects in F344/NCr rats 1351

effect on pancreatic carcinogenesis 1379

NIH-3T3 cells

effect of calf serum on spontaneous transformation 1873

Nitrochrysene isomers

comparative tumourigenicity in newborn mice 2271

Nitrosamine metabolism

effect of phenethyl isothiocyanate 2205

**Nitrosamines** 

to secondary amine precursors in human body 563

N-Nitrosobis(2-hydroxypropyl)amine alkylation of tissue DNA 759

Nitrosodiethylamine

carcinogenic effect with nitrosodiethylamine in low doses 1293

N-Nitrosoproline

influence of fruit/vegetable juices 2277

N-Nitrosothiazolidine-4-carboxylic acid

influence of fruit/vegetable juices 2277

Nivalenol

enhancement of glutathione S-transferase placental form-positive foci 787

Norharmam

<sup>32</sup>P-postlabelling analysis of inhibition of dibenzo[a,e]fluoranthene – DNA adducts 723

Nucleic acids

N-hydroxy-4-aminobiphenyl transacetylation/binding by dog hepatic microsomes 1705

Nucleosome rearrangement

and repair patch ligation bleomycin/UV radiation/methyl methanesulfonate-treated cells 135

Nucleotide pools

in choline/methionine/folic acid deficient diet fed rats 2471

Nulliparous mice

<sup>32</sup>P-postlabelling analysis of mammary glands treated with benzo[a]pyrene 2009

O-Acetylation

of N-hydroxy arylamines to form carcinogen-DNA adducts 663

o-Dihydroxybenzene

and caffeic acid, influence on forestomach carcinogenesis 1825

o-Phenylhydroquinone

peroxidative activation leads to DNA adduct formation in HL-60 cells 1937

o-Phenylphenol

covalent binding in DNA using 32P-postlabelling technique 1593 metabolite, DNA adduct formation 1469

O6-Methylguanine

-DNA methyltransferase depletion-DNA synthesis, chick hepatocytes

06-Alkylguanine

-DNA alkyltransferase activity in epidermal normal/tumour cells 1265

O6-Alkylguanine

-DNA alkyltransferase depletion by O6-benzylguanine in breast epithelial cells 1743

06-Alkylguanine

-DNA alkyltransferase expression upregulation in alkylating agents 483

O6-Benzylguanine

O6-alkylguanine - DNA alkyltransferase depletion in breast epithelial cells

06-Methyldeoxyguanosine

effect of ethanol/alcohol on formation 1171

06-Methylguanine

-DNA methyltransferase activity in human tumours 1503

-DNA methyltransferase, amino acid sequences required for activity

-DNA methyltransferase, depletion by O6 methylguanine-DNA synthesis, chick hepatocytes 33

-DNA methyltransferase expression in smokers/non-smokers 1769 -DNA methyltransferase gene, in situ hybridization of human kidney

tissues reveals cell-specific expression 463 -DNA methyltransferases, isolation/characterization of cDNA/genomic

sequences 289 detection in DNA, immunoaffinity purification combined with 32P- postlabelling 469

formation/methylation of Ha-ras proto-oncogene by N-methyl-Nnitrosourea - mammary tumor resistance 857

Okadaic acid

tumour promotion in rat glandular stomach 1841

Oltipraz

effect butanone,4-(methylnitrosamino)-1-(3-pyridyl)-1- tumorigenicity 341

Oncogene hypomethylation

onset by dietary methyl deprivation in rat liver 1869

Opisthordris viverrini

and Praziquantel exposure 309

mucosal neoplasia, Candida albicans as promoter 783

Oral snuff users

in Sudan, carcinogenic tobacco-specific nitrosamines in saliva 1001

Ornithine decarboxylase

epidermal induction 177

induction, staurosporine augments phorbol ester-caused in mouse

epidermis 355

induction of epidermal cells after exposure to 12-O-

tetradecanoylphorbol-13-acetate, mezerein, ethyl phenylpropriolate 51 involvement of prostaglandin E2 by epidermal

anthracene,7-bromomethylbenz[a] 905

Ornithine decarboxylase activity

epidermal, induction by biogenic silica fibers 617

status in mancozeb-exposed mouse skin 131

Osteosarcoma cells

transformation of osteoblast-like human by hexavalent chromates 2021

Ovarian cancer

7,12-dimethylbenz[a]anthracene-induced, manganese superoxide dismutase expression 1941

Overnutrition

and chemical carcinogens in diet-related cancer 2211

Oxidative

DNA damage estimated by 8-hydroxydeoxyguanosine human excretion

Oxidative damage

phenol sensitization of DNA of 8-hydroxyguanine assays 1289

P-glycoprotein

expression gene in marine sponges 69

P450 enzymes

association between growth stimulation/expression in hyperplastic nodules

P53 gene

status in cervical cancer human papilloma virus/cell lines 1273

Palytoxin

neutrophil activation of epidermal cell toxicity 1671

Pancreatic carcinogenesis

effect of caffeine, nicotine, ethanol, sodium selenite 1379 inhibitory effects soybean trypsin inhibitor following N-

nitrosobis(2-oxopropyl)amine initiation 2133

promoting effects of dietary cholesterol/cholestyramine 2047

Pancreatic ductal adenocarcinomas

blood group-A bearing glycoproteins 1829

Papilloma

birth and death/differentiation rates in mouse skin 973

Parous mice

32P-postlabelling analysis of mammary glands DNA adducts treated with benzo[a]pyrene 2009

Pectin

gum, dietary supplementation 1,2-dimethylhydrazine-induced colon

Peripheral blood lymphocytes

coal tar therapy influence on benzo[a]pyrene metabolism/DNA adduct formation in psoriatic patients 1569 stereoselective metabolism of (-)-benzo[a]pyrene-7,8-diol:effect of

smoking 929 Peroxidative activation

of o-phenylhydroquinone leads to DNA adduct formation in HL-60 cells

Peroxisomal enzyme expression

loss in (pre) neoplastic lesions induced by peroxisome proliferators 265

Peroxisome proliferation

and hydrogen peroxide resistance in rat hepatocytes 1751 contrasted with peroxisome proliferation for Wy-14,643/clofibric acid 1011 Peroxisome proliferators

loss of peroxisomal enzyme expression in (pre) neoplastic lesions 265

Phenethyl isothiocyanate

effect on xenobiotic-metabolizing enzymes and nitrosamine metabolism 2205

Phenobarbital

DNA synthesis inhibition in hepatocyte primary cultures 2287 effect on I-compounds in liver DNA 125

increases c-Ha-ras wild type frequency 477

Phenobarbital promotion

dose dependence of rat hepatocarcinogenesis initiated by diethylnitrosamine 501

Phenol sensitization

of DNA to oxidative damage in 8-hydroxyguanine assays 1289

Phenotypic

diversity in multistage hepatocarcinogenesis 739 expression, of epidermal-tumour cells by 12-Otetradecanoylphorbol-13-acetate 1301

enzyme/immunohistochemical of diethylnitrosamine-induced liver lesions in mouse strains 691

Phenyl isocvanates

carbamoylation reactions to 5'-amino-5'-deoxythymidine 699

Phorbol ester

-caused ornithine decarboxylase induction, staurosporine augments in mouse epidermis 355

spin-labelled interactions with cellular membranes-V 211 spin-labelled interactions with cellular membranes-IV 205 tumour promoting activate phospholipase D in mouse skin 1907

**Phosphates** 

inositol in rat liver nodules 1461

**Phosphoinositides** 

inositol in rat liver nodules 1461

Phospholipase D

activation by tumour promoting phorbol esters in mouse skin 1907 Phospholipid metabolism

analysis in v-ras oncogene transformed murine keratinocytes 2367

Phospholipids

and neutral lipids, composition and turnover in breast cancer tissues 579 Photoactivation

of 2-nitrofluorene in rat: covalent binding to RNA/protein 1759

Photochemical method DNA repair of photoproducts in hamster DHFR gene 1975

Photoproducts DNA repair detected by photochemical method in hamster DHFR gene

/azoxymethane treated rats, aberrant crypts correlate with tumour incidence 1509

Pigmented tissue

mouse, pyridine,2-amino-1-methyl-6-phenylimidazo[4,5-b] binding 2263

Piroxicam

effect on biomarkers of colon carcinogenesis 995

Plasma levels

of hepatocyte growth factor in tumor promoter-treated rats 139

Plasmacytomagenesis

in mice; chromosomal translocation dependent neoplastic development 1681

Point mutation analysis

of ras genes in spontaneously-/chemically-induced mouse liver tumours

Polyclonal antibodies

selectivity against diastereomeric

benzo[c]phenanthrene-3,4-diol-1,2-epoxides modified DNA 895

Polycyclic aromatic hydrocarbon

-DNA adducts, related to smoking in mononuclear cells 2041 -DNA adducts in white blood cells from lung cancer patients 987

-contaminated site, cytochrome P450A1 in hepatic lesions of teleost fish

food restriction increases detoxification 519

levels polyploid/diploid hepatocytes in 2-acetylaminofluorene-treated rats 807

Polymerase action

DNA, on benzo[a]pyrene-DNA adducts 2347

Polymerase ativities

on benzo[a]pyrene diolepoxide-modified DNA 1529

Polynuclear aromatic hydrocarbon

carcinogens as antiestrogens in breast cancer cells 2233

Polyploid cells

reduced proliferative activity in hepatocellular carcinoma 1795 Potassium bromate

interaction, active oxygen species generation in vitro 333 Praziquantel

and Opisthordris viverrini exposure 309

Preneoplastic foci dose-dependent formation in rat liver 1427

Preputial gland

development/characterization of sex-dependent metastatic adenocarcinoma 1281

Procarbazine

and DNA adducts 2153

formation of methyl radical 799

Progressive atypia

in spontaneous and N-nitrosodiethylamine-induced hepatocellular adenomas 1541

Proliferation marker

induced by tumor promoter, altered expression of mouse epidermal cytoskeletal protein 963

Proliferative activity

of polyploid cells reduced in hepatocellular carcinoma 1795

Proliferative dependent regulation

of glyceraldehyde-3-phosphate dehydrogenase/uracil DNA glycosylase 2127

Promotion characterization

of altered hepatic foci by 2,3,7,8-tetrachlorodibenzo-p-dioxin in female rat 1389

Promutagenic methylation

damage bladder DNA associated with schistosomiasis 877

Propane 2-nitronate

acetoxime metabolism by cytochrome P450 enzymes 1091

Prostaglandin E2

involvement in ornithine decarboxylase by epidermal anthracene,7-bromomethylbenz[a] 905

Prostaglandin H synthase

aflatoxin B<sub>1</sub> bioactivation in tissues 533 Prostaglandin inhibitors

suppression of colon carcinogenesis 1019

Protein -cromium binding sites in intact cells 2341

Protein crosslink -DNA, a simple assay for detection 1485

Protein kinase C isozymes

alterations in activated Ha-ras in diacylglycerol 1113

redistribution by thapsigargin/staurosporine 1997

-DNA, defining in vitro cross-linking conditions by chromium(III) compounds 307

Protooncogene mRNAs

elevation in estrogen-induced kidney tumors 601

Psoriatic patients

coal tar therapy and benzo(a)pyrene metabolism/DNA adduct formation in peripheral blood lymphocytes 1569

**Pylorus** 

duodenal reflux induces gastric adenocarcinoma 2313

-DNA adducts, myeloperoxidase-enhanced oxidation in lung tissue 1075

Pyrene,-trans-7,8-dihydroxy-7,8-dihydrobenzo[a]

contribution of dihydrodiol dehydrogenase to metabolism in rat liver

Pyridine,2-amino-1-methyl-6-phenylimidazo(4,5-b]

binding in mouse pigmented tissue 2263 entrapment by magnetic microcapsules 2353

in vitro formation 827

metabolism in mice 621

mutagenicity inhibition in human urine 2317 reactions with 2'-deoxyguanosine and DNA 629

Ouinioline, 2-amino-3-methylimidazo [4,5-f]

chlorophyllin protection against covalent binding to rat liver DNA 113 entrapment by magnetic microcapsules 2353

inhibition-DNA binding by chlorophyllin 1121

metabolic activation - DNA adducts in human mammary epithelial cells

role of human acetylation polymorphism in metabolic activation 1713

Quinoline,2-amino-3,4-dimethylimidazo[4,5-f]

metabolic activation-DNA adducts in human mammary epithelial cells

Ouinoxaline, 2-amino-3, 8-dimethylimidazo[4,5-f]

induction of lesions in rat liver treated with carbon tetrachloride 793 tissue distribution in male rats 779

**Quinol diglucuronides** 

in rat bile following intratracheal instillation of benzo[a]pyrene 403

recognizing 4-aminobiphenyl-DNA adducts and immunoaffinity chromatography application 917

Rubbit nasal P450

and butanone,4-(methylnitrosamino)-1-(3-pyridyl)-1-metabolism 2141

oncogene activation with 7,12-dimethylbenz[a]anthracene, transplacental/transgeneration effect 19

in 2-amino-4-(5-nitro-2-furyl)thiazole/formamide, N-[4-(5-nitro-2-furyl)-2-thiazolyl] transformed 1651

ras gene mutation

in azoxymethane-induced colonic aberrant crypts 2081

point mutation analysis in spontaneously-/chemically-induced mouse liver tumours 1383

ras oncogene

in N-methyl-N-nitrosourea/N-butyl-N-(4-hydroxybutyl)nitrosamine induced bladder carcinomas 2281

expression in aberrant crypt foci 1863

Rat fibroblasts

mutagen-induced amplification of neo gene 439

Rat hepatocarcinogenesis

dietary iron deficiency inhibits by choline-deficient L-amino acid defined diet 1227

dose dependence in phenobarbital promotion initiated by diethylnitrosamine 501

colloidal gold ultraimmunocytochemistry of DNA/RNA adducts 2335 cyproterone acetate induces DNA damage and stimulates DNA synthesis

dioxin,2,3,7,8-tetrachlorodibenzo-p-/ethinylestradiol as co-mitogen 453 metabolism of 1-naphthylamine/2-naphthylamine 2227 peroxisome proliferation and hydrogen peroxide resistance 1751

Rat hentocytes

hyperphosphorylation of cytokeratins 8 and 18 by microcystin-LR 2443 Rat intestine

effects of familial adenomatous polyposis bile 731

Rat liver

ethinyl estradiol-induced cell proliferation 2381

onset of oncogene hypomethylation by dietary methyl deprivation 1869

chlorophyllin protection against covalent binding of quinoline, 2-amino-3-methylimidazo[4,5-f] 113

Rat pituitary changes

observed with magnetic resonance imaging following estrogen stimulus

Rat respiratory tract

carcinogenic effects of coal tar pitch by intratracheal instillations 233

Raw soya flour

response from azaserine-induced pancreatic foci 1519

Reactive oxygen species

detection in gastrointestinal tract 683

Red blood cells

in vivo formation of chromium (V) 2113

Repair kinetics

of radiation-induced DNA lesions in white blood cells 459

Repair patch ligation

and nucleosome rearrangement bleomycin/UV radiation/methyl methanesulfonate-treated cells 135

Replicating DNA

of S-phase cells, inhibition of BPDE-I-induced modification 489

Respiratory tract carcinogenesis

promoting effects of cigarette smoke following diethylnitrosamine treatment 569

Hetinoic acid

gap junctional communication regulation in embryo cells 199

Ribosomal phosphoprotein

expression induced by antitumour agents 259

S-2-(3-aminopropylamino)ethylphosphorothioic acid

reduces neutron-induced mutations at hprt locus prior to/following irradiation 811

S-phase cells

replicating DNA, inhibition of BPDE-I-induced modification 489

S-phenylcysteine

in albumin: biological markers of exposure-benzene 1217

Salmonella typhimurium

N-nitrosodialkylamine activation by rat liver cytochrome P450 2E1

Schistoson

ssociated with bladder cancer-promutagenic methylation damage in bladder DNA 877

Secondary amine precursors

to nitrosamines in human body 563

analogs, comparison with sulfur analogs in cancer prevention 1167

Sequence-selective depurination

DNA interstrand cross-linking/DNA strand break formation associated with alkylated DNA 425

Silica fibers

biogenic, induction of epidermal ornithine decarboxylase activity 617

Sister chromatid exchange

induction and DNA adducts following benzo(b)fluoranthene administration in rat 1731

Sister chromatid exchange frequency

and DNA damage in benzene/toluene-exposed markers 57

Site-specific mutagenesis

copper dependent by benzoyl peroxide in supF gene 1783

Skin tumor promotion

susceptibility, further genetic analysis 525

/non-smokers, O6-methylguanine-DNA methyltransferase, uracil-DNA glycosylase expression 1769

deficient in glutathione S-transferase µ, cytogenetic damage 303 /non-smokers, hprt mutation frequency 1625

effect on 7-methylguanine formation 1951

related polycyclic aromatic hydrocarbon-DNA adducts in mononuclear cells 2041

Smoking habits

relationship with doxorubicin resistance 1946

Sodium chloride

calcium chloride inhibitory effect on gastric carcinogenesis 1155

Sodium selenite

effect on cell proliferation/transformation of rat tracheal epithelial cells 1725

effect on pancreatic carcinogenesis 1379

Sovbean

trypsin inhibitor, inhibitory effects on pancreatic carcinogenesis after Nnitrosobis(2-oxopropyl)amine initiation 2133

hprt mutant clone, reversion by intrachromosomal recombination 609

Species differences

in urinary butadiene metabolites 1633

of mutations in DNA phage M13mp2 exposed to sunlight 1615

Spontaneous transformation

effect of calf serum in NIH-3T3 cells 1873

Staurosporine

augments phorbol ester-caused ornithine decarboxylase induction in mouse epidermis 355

redistribution of protein kinase C isozymes 1997

Stereoselective metabolism

of (-)-benzo[a]pyrene-7,8-diol by human lung microsomes/peripheral blood lymphocytes 929

Storage phosphor imaging technique

for DNA adducts measured by 32P-postlabelling assay 1475

Stress response

a factor in genetic instability of cancer cells 2407

Styrene oxide

interaction with angiotensin by mass spectrometry 1397 Styrene-7,8-oxide

cytotoxic/genotoxic effects in neuroadrenergic cells 417 investigation of covalent binding to rat/mouse DNA 193 Styrene-oxide-treated DNA

identification of N2-substituted 2' deoxyguanosine-3'-phosphate adducts by 32P-postlabelling 315

Sublethal tumour cell

DNA damage induction, role of macrophage-derived tumour necrosis factor alpha 77

Sudan I

-DNA adducts, <sup>32</sup>P-postlabelling analysis 1221

Sulfotransferase

-mediated DNA binding of N-hydroxyarylamines in liver cytosols 1307 Sulfur

effect butanone,4-(methylnitrosamino)-1-(3-pyridyl)-1-tumorigenicity 341

analogs, comparison with selenium analogs in cancer prevention 1167 Sulindac

Sunlight exposed DNA phage M13mp2, spectrum of mutations 1615

supF gene copper dependent site-specific mutagenesis by benzoyl peroxide 1783

Suppressor genes

of mammary carcinoma in Wistar-Kyoto rat 1933

Susceptibility genes

of mammary carcinoma in Wistar-Kyoto rat 1933

SV46

-transformed rabbit chondrocytes 767

SV40 transvection

temperature sensitive, alterations of DNA content endometrial stromal

SV40 urothelial cells

regulation by arachidonic acid metabolism 447

T cell-rich fraction

pregnancy-induced antitumour cytotoxicity against mammary adenocarcinoma cells in rats 2449

T-cell leukemia

tumorigenic activity of rearranged c-myc gene 883

Tamoxifen

genotoxic potential 2197

Teleost fish

cytochrome P450A1 in hepatic lesions from polycyclic aromatic hydrocarbon-contaminated site 505

Thapsigargin

redistribution of protein kinase C isozymes 1997

Thiazole, 2-amino-4-(5-nitro-2-furyl)

formation of thioether conjugate 2087

Thioether conjugate

of thiazole, 2-amino-4-(5-nitro-2-furyl), formation 2087

Thymic lymphosarcoma

flow cytometric analysis induced by N-methyl-N-nitrosourea in C57B1/6J mice 509

Thymidine adducts

formed by acrolein/2-bromoacrolein 2361

Thymidine kinase

effect of colon carcinogenesis in familial adenomatous polyposis 873

administered to urinary bladder, relationship between calculus formation/carcinogenesis 1043

Thyroid tumour

MNU-induced, estrogen receptor levels in LE rats 1315 production in mice by demethylating agents 1039

Tissue

cytochrome P4501A induction by benzo[a]pyrene 2395

DNA alkylation induced by N-nitrosobis(2-hydroxypropyl)amine 759 distribution of quinoxaline, 2-amino-3, 8-dimethylimidazo [4,5-f] in male

Tobacco carcinogenesis XLVIII

carcinogenicity of N'-nitrosonornicotine in mink 1957

Tobacco-related nitrosamines

metabolic activation by cytochrome P450 1789

Tobacco-specific

butanone,4-(methylnitrosamino)-1-(3-pyridyl)-1, inhibitory effects of diallyl sulfide 901

N-nitrosamines, analysis in indoor air 2415

N-nitrosamines, bioavailability to snuff dipper 863 nitrosamines in saliva of oral snuff users in Sudan 1001

Toluene

-exposed markers, DNA damage sister chromatid exchange frequency 57 Topoisomerase poisoning

by antitumour drugs on DNA repair replication by mammalian cell extracts 1371

Tracheal epithelial cells

rat, effect of sodium selenite on cell proliferation/transformation 1725 trans-7,8-dihydrobenzo[a]pyrene-7,8-diol

metabolism of enantiomers by liver microsomal samples 1199

Transacetylation

N-hydroxy-4-aminobiphenyl to nucleic acids by dog hepatic microsomes 1705

Transforming growth factor  $\beta_1$ 

stimulation of mRNA concentration in benzo[a]pyrene treated mouse skin 83

Transforming growth factor-alpha and hepatocarcinogenesis 1481

Transgeneration

transmission of carcinogenic risk 145

Transplacentally initiated

sensitivities of newborn mouse epidermal cells to tumour promoters 251

Trichothiodystrophy

cellular catalase activity 321

Triphenylmethane

a chemopreventive agent, cellular transformation inhibition 1107

tRNA adducts

32P-postlabelling/formation by N,N-dimethyl-4-aminoazobenzene 1657 Tumour

initiation/promotion, inhibitory effect of topical application green tea polyphenol fraction 947

skin/thyroid induction by N-methyl-N-nitrosourea 669

Tumour necrosis factor alpha

role of macrophage-derived in sublethal tumor cell DNA damage induction 77

Tumour prevention

with repetitive UV radiation 9

Tumour promoter

-treated rats, plasma levels of hepatocyte growth factor 139 altered expression of mouse epidermal cytoskeletal protein is proliferation marker 963 dieldrin/phenobarbital increases c-Ha-ras wild type frequency 477

in keratinocyte co-cultures of initiated epidermis 2145

transplacentally initiated sensitivities of newborn mouse epidermal cells 251

Tumour promotion

12-deoxyphorbol 13-esters 2161

by adrenalectomy, inhibitory effect of food restriction 1925 Gi-2 protein epigenetic activation 2403

okadaic acid in rat glandular stomach 1841

**Tumour transplantation** 

human benign/malignant into scid mice 845

Tumourigenesis

benzo[a]pyrene-induced inhibition by myristicin 1921 ethanol enhancement by N-nitrosodimethylamine 2107 green tea/forestomach protection by green tea/licorice 1491 influence of ventral UVA exposure by UVA/UVB irradiation 2169 mouse skin, inhibition by dexamethasone through Ha-ras-independent mechanism 2075

Tumourigenic activity

of rearranged c-myc gene from T-cell leukemia 883

Tumourigenicity

of cyclopenta[a]phenanthrene derivatives and micronucleus induction in mouse skin 329

Tumour incidence

correlate with aberrant crypts in azoxymethane/phytate treated rats 1509 Tumour-promoting

effect of benzene, 1,4-bis[2-(3, 5-dichloropyridyloxy)] in Nnitrosodiethylamine initiated rats 1893

Tumourigenic effect

sequential combined of HPV-16 and chemical carcinogens 1981 Tumourigenicity

comparative of nitrochrysene isomers in newborn mice 2271 Two-dimensional gel electrophoresis

variant protein patterns in hepatomas/liver cell lines 1177

Ultraimmunocytochemistry

colloidal gold of DNA/RNA adducts in rat hepatocytes 2335

Uracil

-DNA glycosylase expression in smokers/non-smokers 1769

## Subject index

Uracil DNA glycosylase

proliferative dependent regulation 2127

Urethan-induced

multiple lung tumors, comparison among ki-ras-gene mutation 851

Urinary bladder

mouse 2-aminofluorene – DNA adducts, age/sex/acetylator phenotype 159 relationship between urinary bladder calculus formation/carcinogenesis administered thymine/melamine 1043

Uroepithelial cells

acetyl-transferase-mediated metabolic activation of N-

hydroxy-4-aminobiphenyl 955

Urothelium 32P-postlal

<sup>32</sup>P-postlabelling in aristolochic acid I treated rat urine 1835

**UV** radiation

-treated cells, nucleosome rearrangement and repair patch ligation 135 repetitive with tumor prevention 9

UVA

irradiation, influence of ventral UVA exposure on tumorigenesis 2169

**UVA** irradiation

genotoxicity in Drosophila melanogaster 1433

UVB

formation of 8-hydroxydeoxyguanosine within mouse DNA 2003 irradiation, influence of ventral UVA exposure on tumorigenesis 2169

**UVC** modulation

of epidermal growth factor receptor number in HeLa S3 cells 183

V-ras oncogene

transformed murine keratinocytes, phospholipid metabolism analysis 2367

V79 cells

amine, N-nitrosobis(2-hydroxypropyl)/amine, N-nitrosobis(2-oxopropyl) mutagenicity 223

Variant protein patterns

in hepatomas/liver cell lines by two-dimensional gel electrophoresis 1177

Ventral UVA exposure

influence on tumorigenesis by UVA/UVB irradiation 2169

Vinyl acetate

reaction kinetics of DNA-histone crosslinking 2095

Vitamin E

protection against esophageal tumor incidence 1811

Weanling rat liver

dietary effect of aflatoxin B<sub>1</sub> 1853

White blood cells

repair kinetics of radiation-induced DNA lesions 459

Wistar-Kyoto rat

mammary carcinoma suppressor genes/susceptibility genes 1933

X chromosomes

can induce cellular senescence 555

X-irradiated cells

delayed reproductive death as dominant phenotype 923

Xenobiotic-metabolizing enzymes

effect of phenethyl isothiocyanate 2205

Xeroderma pigmentosum

cellular catalase activity 321

Yeast

cytochrome P450 expression after chemical treatments 2175

